

Cambria

Table 2.

Historical Groundwater Analytical Data
Chevron Station 9-3417, 32001 Camino Capistrano, California

Well ID	Date Sampled	Groundwater		TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- Benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	TBA (µg/L)	Ethanol (µg/L)	Comments
		Elevation (feet above msl)	EPA Method:													
10/8/1991		73.98	8260	288.4	96.4	11.7	8.5	8.8	-	-	-	-	-	-	-	-
12/17/1991		74.34	670	130	100	10	54	-	-	-	-	-	-	-	-	-
9/14/1992		74.97	23,000	10,000	6,100	660	2,100	-	-	-	-	-	-	-	-	-
12/3/1992		74.73	21,000	6,500	4,500	490	1,700	-	-	-	-	-	-	-	-	-
2/25/1993		77.25	37,000	6,200	8,300	980	5,500	-	-	-	-	-	-	-	-	-
4/12/1993		76.57	66,000	12,000	17,000	1,900	11,000	-	-	-	-	-	-	-	-	-
7/20/1993		75.42	68,000	13,000	15,000	1,100	6,600	-	-	-	-	-	-	-	-	-
11/5/1993		-	130,000	37,000	49,000	3,200	20,000	-	-	-	-	-	-	-	-	-
11/5/1993		-	23,000	9,600	7,400	700	3,000	-	-	-	-	-	-	-	-	-
2/11/1994		-	120,000	33,000	48,000	3,600	19,000	-	-	-	-	-	-	-	-	-
2/11/1994		-	20,000	7,500	5,800	860	3,100	-	-	-	-	-	-	-	-	-
6/29/1994		-	22,000	10,000	6,800	890	3,300	-	-	-	-	-	-	-	-	-
6/29/1994		-	130,000	37,000	51,000	3,400	20,000	-	-	-	-	-	-	-	-	-
9/20/1994		-	100,000	31,000	43,000	3,400	18,000	-	-	-	-	-	-	-	-	-
9/20/1994		-	3,400	1,700	350	180	400	-	-	-	-	-	-	-	-	-
12/20/1994		-	91,000	25,000	24,000	1,900	12,000	-	-	-	-	-	-	-	-	-
12/20/1994		-	2,000	760	270	85	240	-	-	-	-	-	-	-	-	-
3/20/1995		75.76	86,000	23,000	30,000	2,800	14,000	-	-	-	-	-	-	-	-	-
3/20/1995		75.76	70,000	20,000	23,000	2,200	11,000	-	-	-	-	-	-	-	-	-
6/20/1995		76.05	77,608	15,400	24,400	2,670	14,100	-	-	-	-	-	-	-	-	-
6/20/1995		76.05	5,490	2,000	440	260	710	-	-	-	-	-	-	-	-	-
9/20/1995		75.37	170,000	30,000	51,000	3,800	21,000	-	-	-	-	-	-	-	-	-
9/20/1995		75.37	9,700	3,100	580	380	810	-	-	-	-	-	-	-	-	-
12/4/1995		74.82	160,000	29,000	45,000	3,600	20,000	-	-	-	-	-	-	-	-	-
12/4/1995		74.82	2,600	810	450	120	310	-	-	-	-	-	-	-	-	-
3/6/1996		75.67	7,500	2,300	1,200	270	850	-	-	-	-	-	-	-	-	-
3/6/1996		75.67	97,000	20,000	29,000	2,500	12,000	-	-	-	-	-	-	-	-	-
6/11/1996		74.89	100,000	23,000	42,000	2,600	17,000	-	-	-	-	-	-	-	-	-
6/11/1996		74.89	35,000	11,000	9,800	1,200	5,000	-	-	-	-	-	-	-	-	-
9/12/1996		74.34	3,700	1,800	500	110	360	-	-	-	-	-	-	-	-	-
9/12/1996		74.34	4,200	2,000	570	120	410	-	-	-	-	-	-	-	-	-
12/18/1996		75.22	9,800	4,600	1,700	350	1,200	-	-	-	-	-	-	-	-	-
2/26/1997		75.68	11,000	1,700	1,200	320	920	-	-	-	-	-	-	-	-	-
6/5/1997		74.87	1,300	320	120	59	130	-	-	-	-	-	-	-	-	-
9/8/1997		74.47	83,000	7,100	14,000	1,900	7,400	-	-	-	-	-	-	-	-	-

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Well ID	Date Sampled	Groundwater Elevation (feet above ms)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- Benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	TBA (µg/L)	Ethanol (µg/L)	Comments
		EPA Method:	8260	8260	8260	8260	8260	8260	8020/8021	8260	8260	8260	8260	8260	
	11/13/1997	74.34	63,000	14,000	17,000	2,100	9,100	—	<10	—	—	—	—	—	—
	11/13/1997	74.34	62,000	14,000	17,000	2,100	9,100	—	<10	—	—	—	—	—	—
	4/20/1998	77.32	18,000	2,900	3,100	750	1,800	—	82	—	—	—	—	—	—
	4/20/1998	77.32	19,000	3,000	3,100	800	1,800	—	88	—	—	—	—	—	—
	7/29/1998	76.53	3,600	630	350	130	270	—	79	—	—	—	—	—	—
	7/29/1998	76.53	5,600	1,400	970	260	640	—	38	—	—	—	—	—	—
	10/31/1998	76.29	8,670	714	758	123	462	—	54	—	—	—	—	—	—
	1/25/1999	76.34	11,060	348	422	103	330	—	<10	—	—	—	—	—	—
	6/3/1999	76.12	12,590 J	950	820	83	460	—	<500	—	—	—	—	—	—
	8/4/1999	75.73	70 J	<0.3	<0.3	<0.3	<0.6	—	70	—	—	—	—	—	—
	12/1/1999	75.58	3,410 J	490	355	50	270	—	63 J	—	—	—	—	—	—
	2/17/2000	75.75	4,950 J	820	220	20	700	—	250	—	—	—	—	—	—
	2/17/2000	—	25,300	3,200	3,500	570	1,500	132	305	—	—	—	—	—	—
	4/20/2000	76.23	9,490 J	833	830	153	535	861	836	—	—	—	—	—	—
	7/21/2000	75.50	688 J	1,910	232	147	528	318	688	—	—	—	—	—	—
	10/19/2000	75.37	5,670	850	582	70	724	14	—	<1	<1	<1	<20	—	—
	1/22/2001	76.05	4,930	843	725	148	427	1,020	—	<1	<1	<1	<20	—	—
	5/3/2001	76.46	8,640	1,290	155	94	355	5,340	—	<1	<1	20	3750	—	—
	8/3/2001	75.95	4,880	744	553	110	486	206	—	<1	<1	<1	37	—	—
	11/1/2001	75.80	3,930	850	893	353	951	706	—	<1	<1	<1	1500	—	—
	2/6/2002	75.82	6,160	1,410	1,780	216	868	2,210	—	<1	<1	<1	1910	—	—
	5/10/2002	75.79	4,700	812	1,000	139	569	374	—	<10	<10	<10	494	—	—
	8/8/2002	77.92	11,600	1,720	1,730	290	1,120	1,050	—	<10	<10	<10	1080	—	—
	11/13/2002	78.21	18,300	1,330	2,570	212 J	1,120	830	—	<50	<50	<50	442 J	—	—
	1/27/2003	78.24	3,300	790	510	130	420	310	—	<40	<40	<40	440 J	—	—
	4/11/2003	78.90	2,400	590	290	93	340	360	—	<2	<2	3.6 J	320	—	—
	7/7/2003	78.62	3,600	720	430	150	550	280	—	<10	<10	<10	220	—	—
	10/7/2003	78.40	26,000	6,200	7,400	1,400	5,200	1,500	—	<400	<400	<400	<2,000	—	—
	1/8/2004	78.12	32,000	6,200	7,700	1,400	6,100	1,100	—	<100	<100	<100	<500	—	—
	4/8/2004	78.19	3,300	690	550	120	460	53	—	<20	<20	<20	<100	—	—
	7/12/2004	77.64	1,500	340	200	44 J	170	41 J	—	<20	<20	<20	120 J	—	—
	11/3/2004	78.17	4,000	1,100	1,400	230	1,000	120	—	<2	<2	4.2 J	<100	—	—
	3/25/2005	79.49	3,800	1,100	1,100	280	710	75	—	<20	<20	<20	<100	—	—
	6/8/2005	78.10	3,500	970	510	160	370	451	—	<40	<40	<40	<200	<2000	—

Before purge sample
After purge sample

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Well ID	Date Sampled	Groundwater Elevation (feet above msl)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- Benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	TBA (µg/L)	Ethanol (µg/L)	Comments
EPA Method:			8260	8260	8260	8260	8260	8260	8020/8021	8260	8260	8260	8260	8260	
CMW-09	6/28/1991	-	<500	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	-	-	-	-	-
	8/8/1991	-	<500	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	-	-	-	-	-
	10/8/1991	-	<500	<0.3	<0.3	0.7	0.7	-	-	-	-	-	-	-	-
	12/17/1991	73.69	<500	<0.3	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-
	9/14/1992	74.41	<500	<0.3	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-
	12/31/1992	74.25	<500	<0.3	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-
	2/25/1993	76.69	<500	<0.3	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-
	4/12/1993	75.94	<500	0.6	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-
	7/20/1993	74.80	<500	<0.3	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-
	11/5/1993	74.17	<500	5.8	4.3	<0.3	1.1	3.4	-	-	-	-	-	-	-
	2/11/1994	74.37	<500	<0.3	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-
	6/29/1994	74.08	<500	<0.3	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-
	9/20/1994	73.79	<500	0.8	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-
	12/20/1994	73.71	<500	<0.3	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-
	3/20/1995	75.11	<500	1.9	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-
	6/20/1995	75.47	<500	<0.3	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-
	9/20/1995	74.71	<500	<0.3	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-
	12/4/1995	-	<500	<0.3	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-
	3/6/1996	74.67	<500	<0.3	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-
	6/11/1996	74.09	<500	<0.3	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-
	9/12/1996	73.54	<500	<0.3	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-
	12/18/1996	74.34	<500	<0.3	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-
	2/26/1997	74.85	<500	<0.3	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-
	6/5/1997	74.07	<500	<0.3	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-
	9/8/1997	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11/13/1997	73.91	<500	0.6	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-
	2/11/1998	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4/20/1998	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	7/29/1998	75.59	-	-	-	-	-	-	-	-	-	-	-	-	-
	10/31/1998	75.36	<500	<0.3	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-
	1/25/1999	75.43	<500	<0.3	<0.3	<0.3	<0.3	1.3	-	-	-	-	-	-	-
	6/3/1999	75.22	1,480 J	<7.5	<7.5	<7.5	<7.5	<15	-	-	-	-	-	-	-
	8/4/1999	74.87	<500	<0.3	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-
	12/1/1999	74.72	<500	<0.3	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-
	2/17/2000	74.88	193 J	11	40	3	16	-	-	-	-	-	-	-	-

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Well ID	Date Sampled	Groundwater		TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- Total		MTBE (µg/L)	MTBE (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	TBA (µg/L)	Ethanol (µg/L)	Comments
		Elevation (feet above msl)	Elevation				Benzene	Xylenes								
			EPA Method:	8260	8260	8260	8260	8260	8260	8020/8021	8260	8260	8260	8260	8260	
	4/20/2000	75.35	221 J	<0.3	3	<0.3	3	<0.6	—	221	—	—	—	—	—	—
	7/21/2000	74.63	270 J	<0.3	<0.3	<0.3	<0.3	<0.6	—	270	—	—	—	—	—	—
	10/19/2000	74.49	119 J	<0.3	<0.3	<0.3	<0.3	<0.6	11	—	<1	<1	<1	<20	—	—
	1/22/2001	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Car over well.
	5/3/2001	75.53	295	<0.3	<0.3	<0.3	<0.3	<0.6	382	—	<1	<1	2.2	103	—	—
	8/3/2001	75.08	<100	<0.3	<0.3	<0.3	<0.3	<0.6	90	—	<1	<1	<1	43	—	—
	11/1/2001	74.97	<100	<0.3	<0.3	<0.3	<0.3	<0.6	38	—	<1	<1	<1	<10	—	—
	2/6/2002	74.96	<100	<0.3	<0.3	<0.3	<0.3	<0.6	50	—	<1	<1	<1	<10	—	—
	5/10/2002	74.97	<100	<0.3	<0.3	<0.3	<0.3	<0.6	17	—	<1	<1	<1	<10	—	—
	8/8/2002	76.95	<100	<0.3	<0.3	<0.3	<0.3	<0.6	32	—	<1	<1	<1	<10	—	—
	11/13/2002	77.25	<100	<0.3	<0.3	<0.3	<0.3	<0.6	20	—	<1	<1	<1	<10	—	—
	1/27/2003	77.21	180	<0.3	<0.3	<0.3	<0.3	<0.6	45	—	<1	<1	<1	<10	—	—
	4/11/2003	77.88	<0.3	<0.3	<0.3	<0.3	<0.3	<0.6	16	—	<1	<1	<1	<10	—	—
	7/7/2003	77.60	<0.3	<0.3	<0.3	<0.3	<0.3	<0.6	22	—	<1	<1	<1	<10	—	—
	10/7/2003	77.39	<0.3	<0.3	<0.3	<0.3	<0.3	<0.6	36	—	<1	<1	<1	<10	—	—
	1/8/2004	77.21	<0.3	<0.3	<0.3	<0.3	<0.3	<0.6	2	—	<1	<1	<1	<10	—	—
	4/8/2004	77.16	<0.3	<0.3	<0.3	<0.3	<0.3	<0.6	10	—	<1	<1	<1	<10	—	—
	7/12/2004	76.68	<0.3	<0.3	<0.3	<0.3	<0.3	<0.6	9.1	—	<1	<1	<1	<10	—	—
	11/3/2004	77.16	<0.3	<0.3	<0.3	<0.3	<0.3	<0.6	5.5	—	<1	<1	<1	<10	—	—
	3/25/2005	78.34	<0.3	<0.3	<0.3	<0.3	<0.3	<0.6	6	—	<1	<1	<1	<10	—	—
	6/8/2005	77.10	<0.3	<0.3	<0.3	<0.3	<0.3	<0.6	9.9	<2.0	<2.0	<2.0	<2.0	<10	<100	—
CMW-11	6/28/1991	—	<500	<0.3	<0.3	<0.3	<0.3	<0.6	—	—	—	—	—	—	—	—
	8/8/1991	—	<500	<0.3	<0.3	<0.3	<0.3	<0.6	—	—	—	—	—	—	—	—
	10/8/1991	—	<500	<0.3	<0.3	<0.3	<0.3	<0.6	—	—	—	—	—	—	—	—
	12/17/1991	73.32	<500	0.4	<0.3	<0.3	<0.3	<0.6	—	—	—	—	—	—	—	—
	9/14/1992	73.96	<500	<0.3	<0.3	<0.3	<0.3	<0.6	—	—	—	—	—	—	—	—
	12/3/1992	73.86	<500	<0.3	<0.3	<0.3	<0.3	<0.6	—	—	—	—	—	—	—	—
	2/25/1993	76.37	<500	0.5	<0.3	<0.3	<0.3	<0.6	—	—	—	—	—	—	—	—
	4/12/1993	75.59	<500	<0.3	<0.3	<0.3	<0.3	<0.6	—	—	—	—	—	—	—	—
	7/20/1993	74.44	<500	<0.3	<0.3	<0.3	<0.3	<0.6	—	—	—	—	—	—	—	—
	11/5/1993	73.81	<500	<0.3	<0.3	<0.3	<0.3	<0.6	—	—	—	—	—	—	—	—
	2/11/1994	74.02	<500	<0.3	<0.3	<0.3	<0.3	<0.6	—	—	—	—	—	—	—	—
	6/29/1994	73.72	<500	<0.3	<0.3	<0.3	<0.3	<0.6	—	—	—	—	—	—	—	—
	9/20/1994	73.50	<500	<0.3	1.2	<0.3	<0.3	1.4	—	—	—	—	—	—	—	—

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Well ID	Date Sampled	Groundwater		TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE	MTBE	ETBE	DIPE	TAME	TBA	Ethanol	Comments
		Elevation (feet above msl)	EPA Method:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	
	12/20/1994	73.33	8260	<500	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-	-
	3/20/1995	74.77	<500	<0.3	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-	-
	6/20/1995	75.19	<500	<0.3	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-	-
	9/20/1995	74.39	<500	<0.3	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-	-
	12/4/1995	-	59	<0.3	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-	-
	3/6/1996	74.71	<500	<0.3	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-	-
	6/11/1996	74.12	<500	<0.3	<0.3	<0.3	<0.3	<0.6	-	1,200	-	-	-	-	-	-
	9/12/1996	73.57	<500	<0.3	<0.3	0.3	<0.3	<0.6	-	120	-	-	-	-	-	-
	12/18/1996	74.32	<500	<0.3	<0.3	<0.3	<0.3	<0.6	-	<10	-	-	-	-	-	-
	2/26/1997	74.84	<500	<0.3	<0.3	<0.3	<0.3	<0.6	-	190	-	-	-	-	-	-
	6/5/1997	74.03	<500	<0.3	<0.3	<0.3	<0.3	<0.6	-	170	-	-	-	-	-	-
	9/8/1997	73.63	<500	<0.3	<0.3	<0.3	<0.3	<0.6	-	380	-	-	-	-	-	-
	9/8/1997	-	<500	<0.3	0.5	<0.3	<0.3	<0.6	-	490	-	-	-	-	-	-
	11/13/1997	73.51	<500	<0.3	1	<0.3	<0.3	<0.6	-	570	-	-	-	-	-	-
	2/11/1998	74.95	<500	<0.3	<0.3	<0.3	<0.6	<0.6	-	850	-	-	-	-	-	-
	4/20/1998	76.41	<500	<0.3	<0.3	<0.3	<0.6	<0.6	-	160	-	-	-	-	-	-
	7/29/1998	75.59	<500	<0.3	<0.3	<0.3	<0.6	<0.6	-	180	-	-	-	-	-	-
	10/31/1998	75.39	<500	<0.3	<0.3	<0.3	<0.3	<0.6	-	224	-	-	-	-	-	-
	1/25/1999	75.52	<500	<0.3	<0.3	<0.3	1.9	<0.6	-	320	-	-	-	-	-	-
	6/3/1999	75.24	2,620 J	<7.5	<7.5	<7.5	<7.5	<15	-	300	-	-	-	-	-	-
	8/4/1999	74.90	340 J	<0.3	<0.3	<0.3	<0.3	<0.6	-	340	-	-	-	-	-	-
	12/1/1999	74.76	785 J	<12	<12	<12	<12	<24	680	785	-	-	-	-	-	-
	2/17/2000	74.95	600	1	5	<0.3	<0.3	3	-	<5	-	-	-	-	-	-
	4/20/2000	75.32	416 J	<0.3	<0.3	<0.3	<0.3	<0.6	-	416	-	-	-	-	-	-
	7/21/2000	74.70	390 J	<0.3	<0.3	<0.3	<0.3	<0.6	-	390	-	-	-	-	-	-
	10/19/2000	74.53	442 J	<5	<5	<5	<5	<5	52	-	<1	<1	<1	<20	-	-
	1/22/2001	75.19	<100	<5	<5	<5	<5	<5	176	-	<1	<1	<1	<20	-	-
	5/3/2001	75.55	1,810	<5	<5	<5	<5	<5	24,100	-	<1	<1	19	9510	-	-
	8/3/2001	75.10	278	<5	<5	<5	<5	<5	224	-	<1	<1	<1	96	-	-
	11/1/2001	75.01	398	<1	<1	<5	<5	<5	440	-	<1	<1	<1	<10	-	-
	2/6/2002	74.98	333	<1	<1	<5	<5	<5	511	-	<1	<1	<1	<10	-	-
	5/10/2002	74.97	174	<1	<1	<5	<5	<5	189	-	<1	<1	<1	131	-	-
	8/8/2002	76.95	286	<1	<1	<5	<5	<5	423	-	<1	<1	<1	24	-	-
	11/13/2002	77.28	175	<1	<1	<5	<5	<5	334	-	<1	<1	<1	33	-	-
	1/27/2003	77.34	350	<1	<1	<1	<1	<1	460	-	<2	<2	<2	55 J	-	-

Table 2.

Historical Groundwater Analytical Data
Chevron Station 9-3417, 32001 Camino Capistrano, California

Well ID	Date Sampled	Groundwater Elevation (feet above msl)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- Benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	TBA (µg/L)	Ethanol (µg/L)	Comments
		EPA Method:	8260	8260	8260	8260	8260	8260	8020/8021	8260	8260	8260	8260	8260	
	4/11/2003	77.89	240	<1	<1	<1	<1	480	-	<2	<2	<2	<10	-	-
	7/7/2003	77.62	430	<4	<4	<4	<4	1,000	-	<8	<8	<8	<40	-	-
	10/7/2003	77.41	1,300	<10	<10	<10	<10	3,000	-	<20	<20	<20	170 J	-	-
	1/8/2004	77.27	2,100	<20	<20	<20	<20	2,900	-	<40	<40	<40	<200	-	-
	4/8/2004	77.27	<500	<10	<10	<10	<10	360	-	<20	<20	<20	<100	-	-
	7/12/2004	76.63	400	<4	<4	<4	<4	420	-	<8	<8	<8	<40	-	-
	11/3/2004	77.12	140	<1	<1	<1	<1	340	-	<2	<2	<2	<10	-	-
	3/25/2005	78.36	1,000	<10	<10	<10	<10	1,800	-	<20	<20	<20	<100	-	-
	6/8/2005	76.94	300	<1.0	<1.0	<1.0	<1.0	990	<2.0	<2.0	<2.0	<2.0	93	<100	-
AMW-01	6/28/1991	-	<500	<0.3	0.5	<0.3	1.7	-	-	-	-	-	-	-	-
	8/8/1991	-	<500	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-	-
	10/8/1991	-	<500	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-	-
	12/17/1991	72.94	<500	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-	-
	9/14/1992	73.48	<500	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-	-
	12/3/1992	73.36	<500	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-	-
	2/25/1993	75.76	<500	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-	-
	4/12/1993	75.03	<500	0.4	<0.3	<0.3	<0.6	-	-	-	-	-	-	-	-
	7/20/1993	73.90	<500	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-	-
	11/5/1993	73.27	<500	0.4	0.7	<0.3	0.6	-	-	-	-	-	-	-	-
	2/11/1994	73.48	<500	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-	-
	6/29/1994	73.20	<500	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-	-
	9/20/1994	72.94	<500	0.7	0.8	0.4	1.4	-	-	-	-	-	-	-	-
	12/20/1994	72.98	<500	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-	-
	3/20/1995	74.25	<500	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-	-
	6/20/1995	74.64	<500	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-	-
	9/20/1995	73.84	150	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-	-
	12/4/1995	-	140	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-	-
	3/6/1996	74.17	<500	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-	-
	6/11/1996	73.57	<500	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	380	-	-
	9/12/1996	73.02	<500	0.4	<0.3	<0.3	<0.6	-	-	-	-	-	210	-	-
	12/18/1996	73.79	80	0.5	<0.3	<0.3	<0.6	-	-	-	-	-	170	-	-
	2/26/1997	74.33	220	1.4	2	1.8	2.3	-	-	-	-	-	120	-	-
	6/5/1997	73.52	<500	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-	-
	9/8/1997	73.12	<500	<0.3	<0.3	<0.3	<0.6	-	160	-	-	-	-	-	-

Table 2.

Historical Groundwater Analytical Data
Chevron Station 9-3417, 32001 Camino Capistrano, California

Well ID	Date Sampled	Groundwater Elevation (feet above msl)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- Benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	TBA (µg/L)	Ethanol (µg/L)	Comments
		EPA Method:	8260	8260	8260	8260	8260	8260	8020/8021	8260	8260	8260	8260	8260	
11/13/1997		72.95	<500	1.1	<0.3	<0.3	<0.6	—	620	—	—	—	—	—	—
2/1/1998		74.39	<500	<0.3	<0.3	<0.3	<0.6	—	100	—	—	—	—	—	—
2/1/1998		—	<500	<0.3	0.46	<0.3	<0.6	—	100	—	—	—	—	—	—
4/20/1998		—	—	—	—	—	—	—	200	—	—	—	—	—	—
4/20/1998		75.85	<500	<0.3	<0.3	<0.3	<0.6	—	160	—	—	—	—	—	—
7/29/1998		—	—	—	—	—	—	—	150	—	—	—	—	—	—
7/29/1998		75.02	<500	<0.3	<0.3	<0.3	<0.6	—	140	—	—	—	—	—	—
10/31/1998		74.80	<500	<0.3	<0.3	<0.3	<0.6	—	<10	—	—	—	—	—	—
1/25/1999		74.92	<500	<0.3	<0.3	<0.3	<0.6	—	91	—	—	—	—	—	—
6/3/1999		74.69	4,510 J	<15	<15	<15	<30	831	890	—	—	—	—	—	—
8/4/1999		74.35	994	<0.3	<0.3	<0.3	<0.6	642	994	—	—	—	—	—	—
12/1/1999		74.25	<500	<0.3	<0.3	<0.3	<0.6	—	343	—	—	—	—	—	—
2/17/2000		74.41	145 J	4	18	<0.3	8	—	145	—	—	—	—	—	—
4/20/2000		74.76	160 J	<0.3	<0.3	<0.3	<0.6	—	160	—	—	—	—	—	—
7/21/2000		74.17	1210	<0.3	<0.3	<0.3	2	—	610	—	—	—	—	—	—
10/19/2000		74.03	521	<5	<5	<5	<5	76	—	—	—	1.6	<20	—	—
1/22/2001		74.67	<100	<5	<5	<5	<5	211	—	—	—	5.2	<20	—	—
5/3/2001		74.98	325	<5	<5	<5	<5	393	—	—	—	3.6	68	—	—
8/3/2001		74.51	321	<5	<5	<5	<5	586	—	—	—	<1	165	—	—
11/1/2001		74.48	244	<1	<5	<5	<5	217	—	—	—	2.4	<10	—	—
2/6/2002		74.44	161	<1	<5	<5	<5	298	—	—	—	2.3	46	—	—
5/10/2002		74.47	197	<1	<5	<5	<5	154	—	—	—	<1	50	—	—
8/8/2002		76.44	191	<1	<5	<5	<5	189	—	—	—	1.5	<10	—	—
11/13/2002		76.74	144	<1	<5	<5	<5	173	—	—	—	1.2	17	—	—
1/27/2003		76.80	130	<1	<1	<1	<1	160	—	—	—	<2	<10	—	—
4/11/2003		77.34	98 J	<1	<1	<1	<1	140	—	—	—	<2	<10	—	—
7/7/2003		77.06	69 J	<1	<1	<1	<1	130	—	—	—	<2	<10	—	—
10/7/2003		76.88	59 J	<1	<1	<1	<1	110	—	—	—	<2	<10	—	—
1/8/2004		76.68	<50	<1	<1	<1	<1	57	—	—	—	<2	<10	—	—
4/8/2004		76.59	<50	<1	<1	<1	<1	55	—	—	—	<2	<10	—	—
7/12/2004		76.08	<50	<1	<1	<1	<1	37	—	—	—	<2	<10	—	—
11/3/2004		76.57	<50	<1	<1	<1	<1	34	—	—	—	<2	<10	—	—
3/25/2005		77.80	<50	<1	<1	<1	<1	22	—	—	—	<2	<10	—	—
6/8/2005		76.32	<50	<1.0	<1.0	<1.0	<1.0	20	<2.0	<2.0	<2.0	<2.0	<10	<100	—

Table 2.
Historical Groundwater Analytical Data
Chevron Station 9-3417, 32001 Camino Capistrano, California

Well ID	Date Sampled	Groundwater Elevation (feet above msl)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- Benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	TBA (µg/L)	Ethanol (µg/L)	Comments
Rinsate	6/3/1999	--	<500	<0.3	<0.3	<0.3	<0.6	--	<10	--	--	--	--	--	--
	8/4/1999	--	<500	<0.3	<0.3	<0.3	<0.6	--	<10	--	--	--	--	--	--
	12/1/1999	--	<500	<0.3	<0.3	<0.3	<0.6	--	<5	--	--	--	--	--	--
	2/17/2000	--	<500	<0.3	<0.3	<0.3	<0.6	--	<5	--	--	--	--	--	--
	4/20/2000	--	<500	<0.3	<0.3	<0.3	<0.6	--	<5	--	--	--	--	--	--
	7/21/2000	--	<500	<0.3	<0.3	<0.3	<0.6	--	<5	--	--	--	--	--	--
	10/19/2000	--	<500	<5	<5	<5	<5	<1	--	<1	<1	<1	<20	--	--
	1/22/2001	--	<100	<5	<5	<5	<5	<1	--	<1	<1	<1	<20	--	--
	5/3/2001	--	<100	<5	<5	<5	<5	<1	--	<1	<1	<1	<10	--	--
	8/3/2001	--	<100	<5	<5	<5	<5	<1	--	<1	<1	<1	<10	--	--
	11/1/2001	--	<100	<1	<5	<5	<5	<1	--	<1	<1	<1	<10	--	--
Trip Blank															
	9/12/1996	--	--	--	<0.3	<0.3	<0.6	--	--	--	--	--	--	--	--
	12/18/1996	--	--	--	<0.3	<0.3	<0.6	--	--	--	--	--	--	--	--
	2/26/1997	--	--	--	<0.3	<0.3	<0.6	--	--	--	--	--	--	--	--
	6/5/1997	--	--	--	<0.3	<0.3	<0.6	--	--	--	--	--	--	--	--
	6/6/1997	--	--	--	<0.3	<0.3	<0.6	--	--	--	--	--	--	--	--
	9/8/1997	--	--	--	<0.3	<0.3	1.7	--	--	--	--	--	--	--	--
	11/13/1997	--	--	--	<0.3	<0.3	<0.6	--	--	--	--	--	--	--	--
	2/11/1998	--	--	--	0.49	<0.6	<0.6	--	--	--	--	--	--	--	--
	4/20/1998	--	--	--	<0.3	<0.6	<0.6	--	--	--	--	--	--	--	--
	7/29/1998	--	--	--	<0.3	<0.6	<0.6	--	--	--	--	--	--	--	--
	10/31/1998	--	<500	<0.3	<0.3	<0.3	<0.6	--	--	--	--	--	--	--	--
	1/25/1999	--	<500	<0.3	<0.3	<0.3	<0.6	--	<10	--	--	--	--	--	--
	6/3/1999	--	<500	<0.3	<0.3	<0.3	<0.6	--	<10	--	--	--	--	--	--
	8/4/1999	--	<500	<0.3	<0.3	<0.3	<0.6	--	<10	--	--	--	--	--	--
	12/1/1999	--	<500	<0.3	<0.3	<0.3	<0.6	--	<5	--	--	--	--	--	--
	2/17/2000	--	<500	<0.3	<0.3	<0.3	<0.6	--	<5	--	--	--	--	--	--
	4/20/2000	--	<500	<0.3	<0.3	<0.3	<0.6	--	<5	--	--	--	--	--	--
	7/21/2000	--	<500	<0.3	<0.3	<0.3	<0.6	--	<5	--	--	--	--	--	--

Cambria

Table 2.
Historical Groundwater Analytical Data
Chevron Station 9-3417, 32001 Camino Capistrano, California

Well ID	Date Sampled	Groundwater Elevation	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	MTBE (8020/8021) (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	TBA (µg/L)	Ethanol (µg/L)	Comments
		(feet above msl)													
		EPA Method:	8260	8260	8260	8260	8260	8260	8020/8021	8260	8260	8260	8260	8260	
10/19/2002		--	<500	<5	<5	<5	<5	<1	--	<1	<1	<1	<1	<20	--
1/22/2001		--	<100	<5	<5	<5	<5	<1	--	<1	<1	<1	<1	<10	--
5/3/2001		--	<100	<5	<5	<5	<5	<1	--	<1	<1	<1	<1	<10	--
8/3/2001		--	<100	<5	<5	<5	<5	<1	--	<1	<1	<1	<1	<10	--
11/1/2001		--	<100	<1	<5	<5	<5	<1	--	<1	<1	<1	<1	<10	--
2/6/2002		--	<100	<1	<5	<5	<5	<1	--	<1	<1	<1	<1	<10	--
5/10/2002		--	<100	<1	<5	<5	<5	<1	--	<1	<1	<1	<1	<10	--
8/8/2002		--	<100	<1	<5	<5	<5	<1	--	<1	<1	<1	<1	<10	--
11/13/2002		--	<100	<1	<5	<5	<5	<1	--	<1	<1	<1	<1	<10	--
1/27/2003		--	<50	<1	<1	<1	<1	<1	--	<1	<1	<1	<1	<10	--
4/11/2003		--	<50	<1	<1	<1	<1	<1	--	<1	<1	<1	<1	<10	--
7/7/2003		--	<50	<1	<1	<1	<1	<1	--	<1	<1	<1	<1	<10	--
10/7/2003		--	<50	<1	<1	<1	<1	<1	--	<1	<1	<1	<1	<10	--
1/8/2004		--	<50	<1	<1	<1	<1	<1	--	<1	<1	<1	<1	<10	--
4/8/2004		--	<50	<1	<1	<1	<1	<1	--	<1	<1	<1	<1	<10	--
7/12/2004		--	<50	<1	<1	<1	<1	<1	--	<1	<1	<1	<1	<10	--
11/3/2004		--	<50	<1	<1	<1	<1	<1	--	<1	<1	<1	<1	<10	--
3/25/2005		--	<50	<1	<1	<1	<1	<1	--	<1	<1	<1	<1	<10	--
6/8/2005		--	<50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	--
QA														<100	

Abbreviations and Notes:

msl = mean sea level
 µg/L = micrograms per liter
 <n = Below detection limit of n µg/L
 J = Denotes estimated value between method detection limit and reporting limit
 TPHg = Total petroleum hydrocarbons as gasoline
 MTBE = Methyl tertiary butyl ether
 Historical data prior to 3/25/2005 provided by Science Applications International Corporation
 Benzene, toluene, ethyl-benzene and total xylenes (BTEx) analyzed by EPA Method 8021 or EPA Method 8260 prior to 3/25/2005. Beginning 3/25/2005 BTEx analyzed by EPA Method 8260.
 TPHg analyzed by EPA Method 8015 or EPA Method 8260 prior to 3/25/2005. Beginning 3/25/2005 TPHg analyzed by EPA Method 8260.

ETBE = Ethyl tertiary butyl ether
 DIPE = Di-isopropyl ether
 TAME = Tertiary amyl methyl ether
 TBA = Tertiary butyl alcohol

ATTACHMENT A

Field Data Sheets and Disposal Record

C A M B R I A

August 9, 2005

Mr. James Strozier
Orange County Health Care Agency
Environmental Health Division
1241 East Dyer Road, Suite 120
Santa Ana, California 92705-5611



Re: **Investigation Work Plan**
Chevron Service Station # 9-3417
32001 Camino Capistrano
San Juan Capistrano, California
Case No. 89UT27



Dear Mr. Strozier:

On behalf of Chevron Environmental Management Company, Cambria Environmental Technology, Inc. (Cambria) is submitting this *Investigation Work Plan* for the site referenced above. The sites description and Cambria's proposed scope of work are presented below.

SITE DESCRIPTION

The Site is located on the southwest corner of the intersection of Del Obispo Street and Camino Capistrano in San Juan Capistrano, California (Figure 1). The Site consists of three 10,000 gallon underground storage tanks (UST), four fuel dispenser islands with associated product piping, and a 250 gallon used-oil above ground storage tank (Figure 2). The approximate ground elevation of the Site is 93 feet above mean sea level (msl). The Site is underlain by gravel, clayey silt, silty clay, silt, and sand to the maximum depth investigated. The surrounding area is predominantly commercial.

The predominant extent of petroleum hydrocarbons in soil has been reported in the immediate vicinity of the three USTs and the dispenser islands at the northeast portion of the Site. The vertical extent of hydrocarbon-impacted soil extends to groundwater in this area.

Groundwater Depth and Flow Direction: First encountered groundwater depths have ranged from 15.80 feet below ground (fbg) to 11.18 fbg. The groundwater flow is generally towards the south.

PROPOSED SCOPE OF WORK

In order to define the extent of off-site methyl tertiary butyl ether (MTBE) migration in

Cambria
Environmental
Technology, Inc.

18 Technology Drive
Suite 167
Irvine, CA 92618
Tel (949) 589-6640
Fax (949) 589-6774

groundwater down gradient of monitoring wells AMW-1 and CMW-11, Cambria proposes to obtain ground water samples by the advancing five direct push hydropunch-style borings outside the expected extent of MTBE (Figure 3). The borings will be located off-site in the parking lot located to the south of the Site. Exact locations of the direct push borings will be determined while in the field. Cambria will obtain offsite property access prior to beginning any work.

Underground Utility Location: Cambria will notify Underground Service Alert to clear the boring locations with utility companies. All locations will be cleared to 8 fbg using a air knife or hand auger prior to drilling.



Site Health and Safety Plan: Cambria will update the site safety plan to be reviewed and signed by all site workers and to be kept on-site at all times.

Permits: Cambria will obtain any necessary permits from the Orange County Health Care Agency (OCHCA) prior to beginning field operations. A minimum of 48 hours of notice will be given to OCHCA prior to beginning drilling activities.

Direct Push Borings: Cambria proposes advancing five direct push borings. The borings will be advanced to first encountered groundwater, approximately 16 fbg.

Ground Water Sampling: Cambria will collect a groundwater sample by Hydropunch™ method using a micro bailer or a peristaltic pump. The groundwater samples will be submitted to a licensed analytical laboratory to be analyzed for hydrocarbons by EPA Method 8260B.

Chemical Analysis: All groundwater samples will be analyzed for:

- Total petroleum hydrocarbons as gasoline (TPHg) by EPA Method 8260B,
- Benzene, toluene, ethylbenzene, and xylenes (BTEX), fuel oxygenates MTBE, DIPE, TBA, TAME, ETBE, and Ethanol by EPA Method 8260B.

Reporting: After the final analytical results are received for this investigation Cambria will summarize the results in a request for regulatory closure that will be submitted to the OCHCA.

C A M B R I A

Mr. James Strozier
August 9, 2005

SCHEDULE AND CLOSING

Cambria will carry out this scope of work upon receiving written approval from the OCHCA. We will submit our investigation report approximately four to six weeks after receiving final analytical results. Please contact Jeff Aguilar at (949) 428-8991 with any questions or comments regarding the site or this work plan.

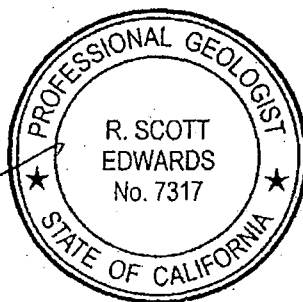
Sincerely,

Cambria Environmental Technology, Inc.



Derek Wilken
Derek Wilken
Staff Geologist

R. Scott Edwards
R. Scott Edwards, P.G. # 7317
Senior Project Geologist



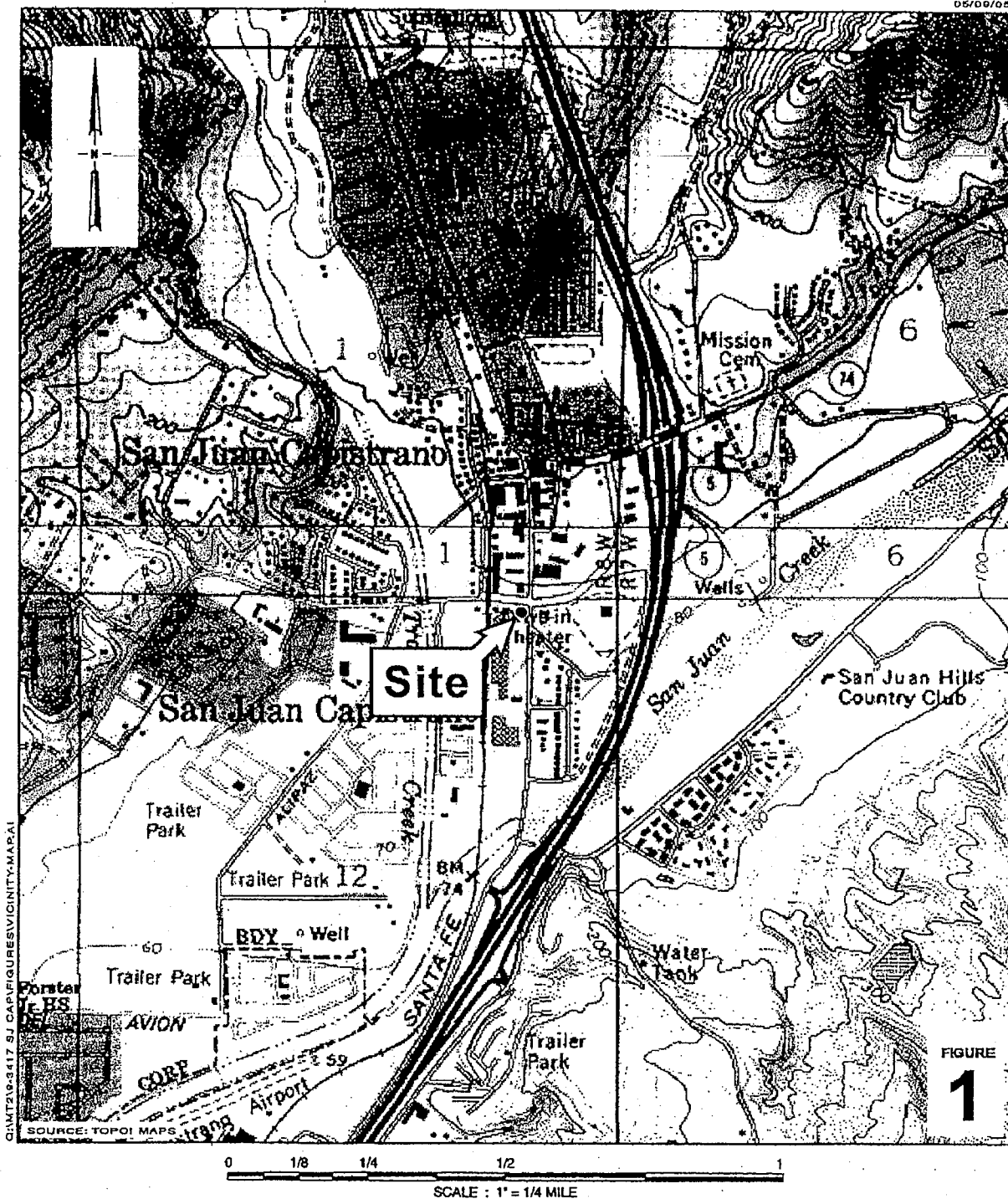
Jeff Aguilar

Jeff Aguilar
Project Geologist

Figures: 1 - Site Vicinity Map
2 - Site plan
3 - Proposed Boring Locations

cc: Mr. Dana Thurman, Chevron Environmental Management Company, P.O. Box 6012,
L4052 San Ramon, CA 94583-0804

05/00/05



Chevron Service Station 9-3417

32001 Camino Capistrano

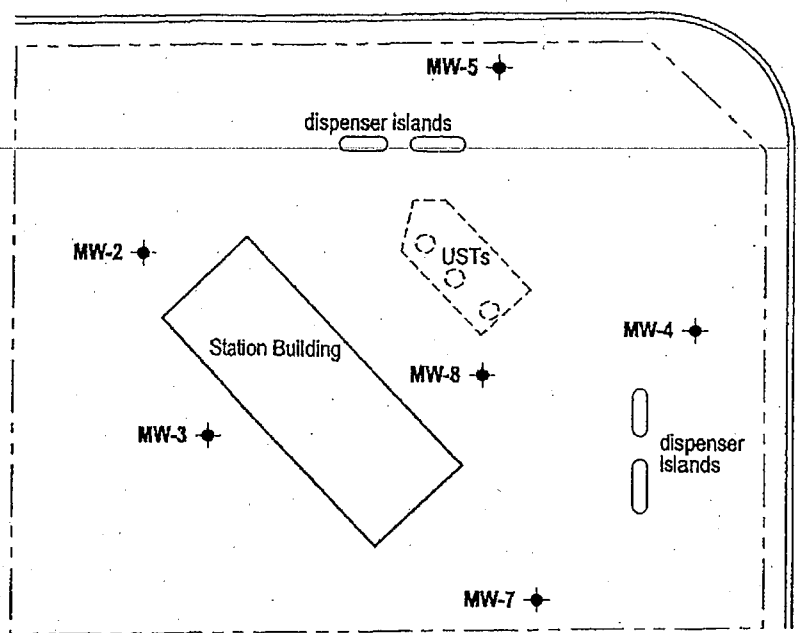
San Juan Capistrano, California



C A M B R I A

Vicinity Map

DEL OBISPO STREET



CAMINO CAPISTRANO

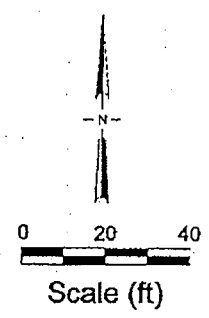
CMW-9

CMW-11

AMW-1

EXPLANATION

MW-1 + Monitoring well location



Basemap modified from Geotracker Survey Map

FIGURE

2

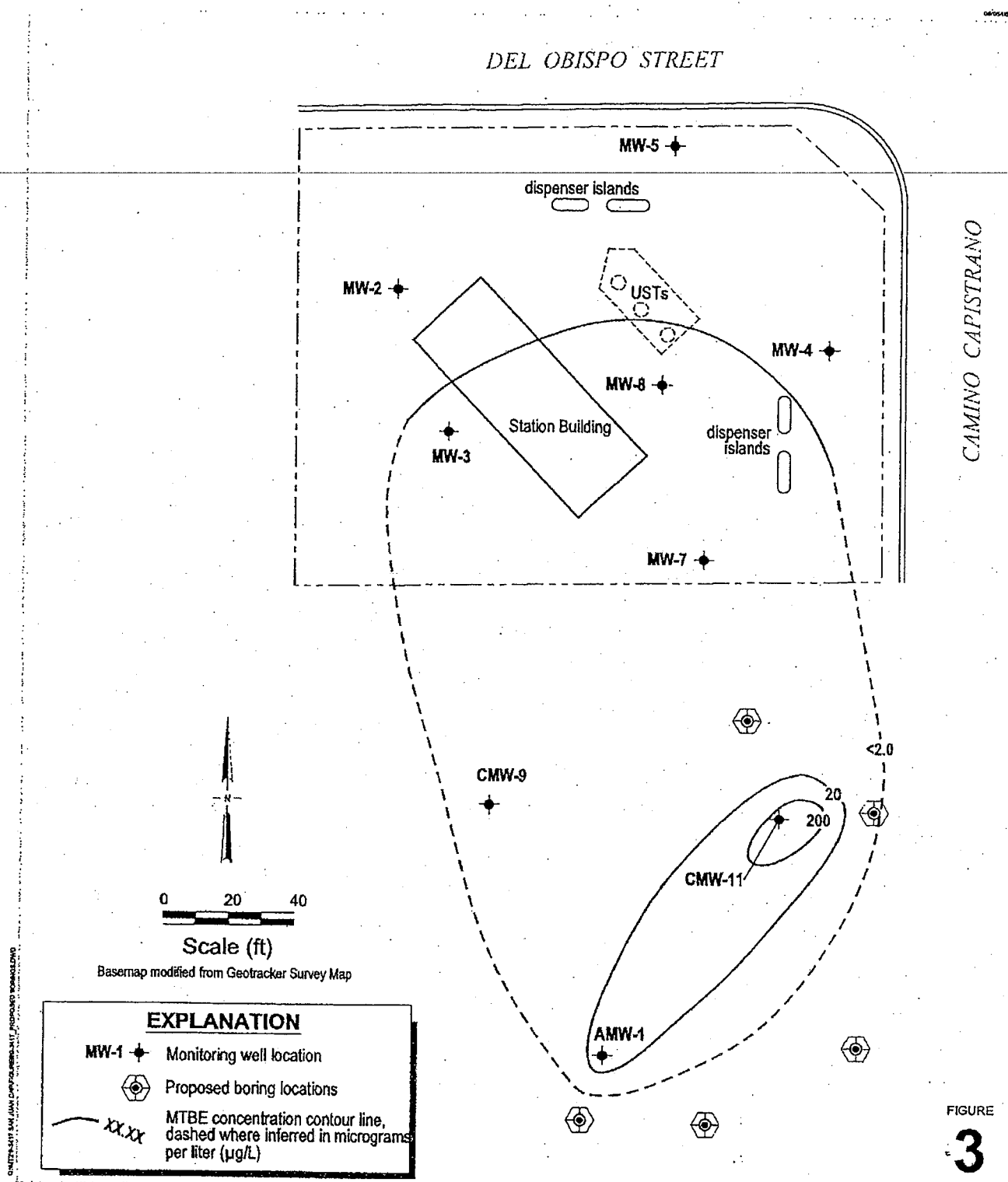
Q:\1518-3417 SAN JUAN CAPISTRANO\1518-3417 SITE PLAN.DWG

Chevron Service Station 9-3417
32001 Camino Capistrano
San Juan Capistrano, California



C A M B R I A

Site Plan



FIGURE

3

Chevron Service Station 9-3417

32001 Camino Capistrano

San Juan Capistrano, California



C A M B R I A

Proposed boring locations

From: John O'Donnell [mailto:JOdonnell@sanjuancapistrano.org]
Sent: Wednesday, February 04, 2009 9:02 AM
To: Molla, Natasha (NatashaMolla)
Cc: Sundaram, Shyamala; Omar Sandoval; Dave Adams; Eric Bauman; West Curry
Subject: RE: Weekly Update for SJC for Week Ending January 30, 2008
Sensitivity: Confidential

Good-morning-Natasha,

The e-mails and letters you have been sending the City over the past few months are full of inaccuracies and misstatements. First off, where is the model you promised for our review? Time is running short. We were expecting to review the model last Friday. Chevron is delaying our review of the model. In response to your e-mail, your memory appears to be clouded. The key issue for the City is the level of MtBE's in our well water. During the last meeting between Chevron and the City, Chevron did agree to work towards an agreeable detection limit, of which the City has determined will be part of the MOU. The MOU will be executed to the satisfaction of the City before the City will consider allowing Chevron to use the Dancehall well for the IRAP. This was clearly stated during our meeting. We have two weeks to execute an MOU prior to the February 17th deadline. I suggest we set a series of meetings in order to complete the MOU. I will be available by cell at 949.973.5834.

Best regards,

John G. O'Donnell
Utilities Director
City of San Juan Capistrano
949.443.6361
fax 493.3955

From: Molla, Natasha (NatashaMolla) [mailto:NatashaMolla@chevron.com]
Sent: Wednesday, February 04, 2009 7:01 AM
To: John O'Donnell
Cc: Jack Fraim; Sundaram, Shyamala; Peter Herzog; Garcia, Juan M. (GARC) (JuanGarcia)
Subject: FW: Weekly Update for SJC for Week Ending January 30, 2008
Sensitivity: Confidential

Hi John,

I am writing to correct the inaccurate statements in your e-mail which you sent to Shyamala yesterday at 9:44 a.m.

First, Chevron and the City met on January 14, 2009, not in December, to discuss remaining obstacles to Chevron proceeding with the installation of the Dance Hall wellhead plume treatment system. Second, in answer to several direct questions at the end of the January 2009 meeting about what the City needed in order to allow Chevron to proceed, the City made very clear that obtaining Chevron's preliminary IRAP modeling files is the only remaining obstacle to the City signing a Memorandum of Understanding ("MOU") with Chevron to allow Chevron to proceed. Third, assuming that by using the term "detection limit" you mean the concentration of MtBE at which point Chevron would take some action with regard to MtBE detected in the City's other wells if the MtBE is shown to have originated from Chevron's operations ("action level"), the parties did not agree to address that issue in the MOU. (Nor does it even make sense to do so because the MOU relates only to the installation of the wellhead treatment at the Dance Hall well.) Instead, Chevron and the City agreed to continue to discuss the "action level" issue while the wellhead treatment system is being installed (assuming that the parties can reach an agreement on the terms of the MOU). Chevron remains committed to working with OCLOP and

the City on the design, construction, and operation of the Dance Hall wellhead plume treatment system. However, Chevron is mindful that the successful implementation of the IRAP requires the City's concurrence, and that the deadline to submit a Corrective Action Plan ("CAP") for other remedial alternatives as required by OCLOP is fast approaching. Therefore, Chevron continues to develop and plan to implement other remedial options, which will be set forth in this month's CAP.

Thank you,

Natasha Molla

Team Lead, Retail and C&I-Southwest

Chevron Environmental Management Company

Marketing Business Unit

145 S. State College Blvd, Brea, CA 92821-5818

Tel 714-671-3537

Fax 714-671-3440

Mobile 714-926-8674

NatashaMolla@chevron.com

From: "John O'Donnell"

Date: Tue, 3 Feb 2009 09:44:59 -0800

To: Jack Fraim<cedarcreek@directcon.net>; Shyamala Sundaram<ssundaram@ochca.com>

Subject: RE: Weekly Update for SJC for Week Ending January 30, 2008

Shyamala,

Please note one clarification to Mr. Fraim's Feb 03 e-mail. Mr. Fraim writes "The City has stated that obtaining Chevron's preliminary IRAP modeling files is the only remaining obstacle to the City signing a Memorandum of Understanding with CEMC to allow CEMC to proceed."

Chevron and the City meet in December to discuss remaining obstacles. Aside from the model review are the conditions of the MOU. As part of the MOU, the City and Chevron have agreed to address the detection limit which is a key remaining obstacle.

Best regards,

John G. O'Donnell

Utilities Director

City of San Juan Capistrano

949.443.6361

fax 493.3955

From: Jack Fraim [mailto:cedarcreek@directcon.net]

Sent: Tuesday, February 03, 2009 1:09 AM

To: Shyamala Sundaram

Cc: John O'Donnell; Eric Bauman; Natasha Molla; Steve Edelman

Subject: Weekly Update for SJC for Week Ending January 30, 2008

Shyamala,

Attached is a summary of Chevron activity on the SJC project for the week ending January 30, 2008. Please call if you have any questions.

Chevron Station 9-3417, 32001 Camino Capistrano

- Implementation of the wellhead treatment system proposed in the IRAP (dated March 26, 2008, approved by OCLOP May 14, 2008) continued. The 60% design plan is completed, the

RSSCT is completed, a construction contractor has been selected, the OCFCD encroachment permit application has been submitted, the CEQA process has started, the greensand filter is being constructed, and the GAC filters are available. Construction and startup of the wellhead treatment system proposed in the IRAP have been delayed. Negotiations continued between CEMC and the City concerning the wellhead treatment system. The City has stated that obtaining Chevron's preliminary IRAP modeling files is the only remaining obstacle to the City signing a Memorandum of Understanding with CEMC to allow CEMC to proceed. The projected startup date will be updated once Chevron has the necessary agreements from the City and the associated permits from Orange County Flood Control District.

- Negotiations continued with Mr. Winebright to re-establish access to wells MW-13 and MW-14. In a meeting on November 21, 2008, OCLOP indicated it would send a letter to Mr. Winebright.
- January 23 - HFA submitted an addendum to CRA's work plan dated December 18, 2007. The addendum describes access issues for the one remaining proposed CPT location and completes the implementation of the work plan.
- January 26-30 - HFA continued implementing the work plan dated August 7, 2008, and addendum dated October 22, 2008, which were approved in OCLOP's December 19 letter (received by CEMC December 29). Geophysical utility surveys of the well locations were completed. The work plan proposes downgradient, multidepth groundwater monitoring well clusters. HFA is pursuing private access agreement for two new locations needed due to denied access and two new locations specified in OCLOP's approval letter.
- January 29 - Blain Tech will conduct monthly monitoring of wells MW-15 and MW-16.

Upcoming Events

- February 2-27 - Hole clearance and installation of well clusters will be conducted.
- February 6, 2009 - HFA will submit a report for the 4Q08 groundwater monitoring event.
- February 6, 2009 - HFA will submit an addendum to the work plan dated August 7, 2008 showing the proposed well cluster re-locations.
- February 17, 2009 - HFA will submit a Corrective Action Plan for the site.
- February 26, 2009 - Blain Tech will conduct monthly groundwater monitoring of wells MW-15 and MW-16.

Chevron Station 9-8719, 26988 Ortega Hwy, San Juan Capistrano

- HFA is pursuing access for off-site groundwater monitoring well installations per the December 1, 2008 work plan.

Upcoming Events

- February 26, 2009 - Blain Tech will conduct quarterly groundwater monitoring event.
- Upon OCLOP approval of HFA's work plan dated December 1, 2008, HFA will conduct off-site groundwater monitoring well installation and other site assessment activities.
- HFA will submit a response to Psomas' December 3, 2008, review of HFA's site assessment report.

Jack Fraim

Principal Hydrogeologist

Cedar Creek Consulting

3989 Sand Ridge Road

Placerville, CA 95667

Phone 530.622.9892

Fax 530.622.9893

-----Original Message-----

From: Molla, Natasha (NatashaMolla) [mailto:NatashaMolla@chevron.com]
Sent: Wednesday, December 23, 2009 6:40 PM
To: West Curry
Cc: bpulver@waterboards.ca.gov; Joe Tait
Subject: FW: Access Agreement
Sensitivity: Confidential

Hi West, as per our discussion during our meeting on Monday, I have attached the access request for you to sign. We appreciate your offer to help expedite IRAP Implementation by reviewing and signing the access agreement.

Natasha Molla
Team Lead, Retail and C&I-Southwest

Chevron Environmental Management Company Marketing Business Unit
145 S. State College Blvd, Brea, CA 92821-5818 Office 714-671-3537
Mobile 714-926-8674 Fax 714-671-3440 NatashaMolla@chevron.com

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INTERIM REMEDIAL ACTION ACCESS AGREEMENT

This agreement for the construction and installation of a wellhead treatment system at the Dance Hall Well ("Agreement") is entered into and effective this ____ day of _____, 2009 ("Effective Date"), by and between **CHEVRON U.S.A. INC.**, a Pennsylvania corporation ("Chevron"), and the **CITY OF SAN JUAN CAPISTRANO** (the "City").

RECITALS

A. Chevron owns a retail service station located at 32001 Camino Capistrano in the City of San Juan Capistrano, County of Orange, State of California, commonly referred to as Chevron Service Station No. 9-3417 (the "Station Property").

B. The City owns and operates the Dance Hall Municipal Supply Well (the "Dance Hall Well").

C. The City leases a groundwater recovery plant (the "GWRP"), located at 32450 Paseo Adelanto, in the City of San Juan Capistrano, County of Orange, State of California, pursuant to a Lease Agreement, executed on October 15, 2002, by the San Juan Basin Authority and the Capistrano Valley Water District (an entity that has since merged with the City's Department of Public Works), and which the City currently operates.

D. The California Regional Water Quality Control Board, San Diego Region ("Regional Board"), issued Cleanup and Abatement Order No. R9-2009-0124 (the "CAO"), on September 3, 2009, naming Chevron and the City as Responsible Parties.

E. The CAO requires Chevron and the City to construct and install a wellhead treatment system at the Dance Hall Well (the "Dance Hall Wellhead Treatment System") in accordance with the March 26, 2008 Interim Remedial Action Plan which was approved by the Orange County Local Oversight Program (the "Work"). The CAO provides that construction of the Dance Hall Wellhead Treatment System must start by November 30, 2009, and the Dance Hall Wellhead Treatment System must be fully operational by January 29, 2010.

TERMS AND CONDITIONS

NOW, THEREFORE, in consideration of the mutual covenants and promises herein, the Parties hereby agree as follows:

1. RIGHTS GRANTED

a. The City hereby grants to Chevron, its employees, authorized agents, consultants, and contractors access to the Dance Hall Well, the GWRP, and related property (the "Property") for the purpose of the Work.

b. Chevron may enter the Property during regular business hours. Chevron may also enter during other non-regular business hours with the City's written consent, which shall not be unreasonably withheld.

c. Chevron, its employees, agents, consultants, and contractors shall enter the Property at their own risk, and the City shall not be held responsible or liable for injury, damage, or loss incurred by such persons arising out of or in connection with the Work, except to the extent that any injury is due to the acts or omissions of the City, its employees, or agents.

2. PERFORMANCE OF THE WORK

Chevron agrees, at its sole cost and expense, to conduct and perform all its activities on the Property in a prompt, safe, efficient, and workmanlike manner and in full and complete compliance with all applicable federal, state or local laws, regulations or ordinances. Chevron will take commercially reasonable efforts not to unreasonably interfere with operations of the City on the Property. The City shall have the right to observe the Work. The City, however, agrees not to unreasonably interfere with the activities conducted by Chevron on the Property. Further, the Parties agree to cooperate and execute any additional documents or permit applications which may reasonably be required to effectuate the purpose of this Agreement.

3. DANCE HALL WELLHEAD TREATMENT SYSTEM DESIGN AND CONSTRUCTION

Chevron, at its sole cost and expense, shall design and construct the Dance Hall Wellhead Treatment System. Chevron shall design and construct the Dance Hall Wellhead Treatment System so as to operate in conjunction with the existing GWRP. Chevron shall submit all plans to the City for review and comment.

4. DANCE HALL WELLHEAD TREATMENT SYSTEM OPERATION AND MAINTENANCE

The City shall be responsible for the operation and maintenance of the Dance Hall Wellhead Treatment System. Chevron shall reimburse the City for any and all incremental costs incurred as a result of the operation and maintenance of the Dance Hall Wellhead Treatment System.

5. DANCE HALL WELLHEAD TREATMENT SYSTEM OWNERSHIP

Chevron shall be considered the owner of the Dance Hall Wellhead Treatment System. Chevron may transfer ownership of the Dance Hall Wellhead Treatment System to the City in the future in a subsequent written agreement.

6. TERM

This license and the Parties' obligations herein shall terminate when the Regional Board relieves Chevron of its obligation to construct and operate the Dance Hall Wellhead Treatment System.

7. RESTORATION

If entry onto the Property by Chevron, or exercise by Chevron of any of its rights or obligations under this Agreement, results in any physical damage to the Property (ordinary wear and

tear excepted), Chevron shall promptly repair and restore the portions of the Property damaged to substantially the same condition as existed prior to the damage or exercise of such right or obligation.

8. INDEMNITY

To the fullest extent permitted by law, Chevron agrees to protect, defend, and hold harmless the City and its officers, agents, and employees from any and all claims, actions, causes of action, rights, demands, debts, obligations, damages, liabilities or losses of any kind, including attorney's fees, arising out of, or in any way connected to or associated with, any acts, errors, negligent omissions, or intentional wrongful conduct of Chevron, its agents, officers, employees, subcontractors, or independent contractors in performing the Work, or directly resulting from the Work, including, without limit, damage to any real or personal property, or injury to or death of any persons in connection therewith.

Chevron shall undertake all activities conducted hereunder at its sole cost and expense.

9. RELEASE

The City shall release and discharge Chevron, its officers, directors, employees, agents, and representatives from any and all claims, actions, causes of action, rights, demands, debts, obligations, damages, liabilities or losses, including attorney's fees, arising out of, or in any way connected to or associated with, any acts, errors, negligent omissions, or intentional wrongful conduct of Chevron, its agents, officers, employees, subcontractors, or independent contractors in performing the Work, or directly resulting from the Work, including, without limit, damage to any real or personal property, or injury to or death of any persons in connection therewith.

10. INSURANCE

In lieu of insurance coverage, Chevron maintains a self-administered claims program with respect to its duties hereunder. Chevron shall provide to the City a certificate that Chevron is self-insured. Additionally, prior to entering onto the Property or continuing any Work, Chevron's contractors, at their own cost and expense, shall carry, maintain, and provide proof thereof that is acceptable to the City, the insurance specified below with insurers and under forms of insurance satisfactory in all respects to the City. Chevron and its contractors shall not allow any subcontractor to commence work on any subcontract until all insurance required of the contractor has also been obtained for the subcontractor. Insurance required herein shall be provided by insurers authorized to do business and in good standing with the State of California and having a minimum Best's Guide Rating of A- Class VII or better.

(a) Comprehensive General Liability coverage in an amount not less than one million dollars per occurrence (\$1,000,000.00), combined single limit coverage for risks associated with the Work. If a Commercial General Liability Insurance form or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to the Work or the general aggregate limit shall be at least twice the required occurrence limit.

(b) Comprehensive Automobile Liability coverage, including owned, hired and non-owned vehicles in an amount not less than one million dollars per occurrence (\$1,000,000.00).

(c) Worker's Compensation Employer's Liability Insurance in the statutory amount as required by California law.

(d) Proof of Insurance Requirements/Endorsement. The contractor shall submit the insurance certificates, including the deductible or self-retention amount, and an additional insured endorsement naming the City, its officers, employees, and agents, as additional insureds as respects each of the following: Liability arising out of activities performed by or on behalf of the contractor, including the insured's general supervision of the contractor; products and completed operations of the contractor; or automobiles owned, leased, hired, or borrowed by the contractor. The coverage shall contain no special limitations on the scope of protection afforded the City, its officers, employees, or agents.

(e) Notice of Cancellation/Termination of Insurance. The above policy/policies shall not terminate, nor shall they be cancelled, nor the coverages reduced, until after thirty (30) days' written notice is given to the City, except that ten (10) days' notice shall be given if there is a cancellation due to failure to pay a premium.

11. LIENS

Chevron shall discharge at once or bond or otherwise secure against all liens and attachments that are filed in connection with the Work, and shall indemnify and save the City and the Property harmless from and against any and all loss, damage, injury, liability, and claims thereof resulting directly from such liens and attachments.

12. NOTICES

Any notices required to be made under this Agreement shall be made in writing to the address of the appropriate Party as set forth below. All such notices shall be deemed to have been duly given and received upon mailing, facsimile, or delivery by courier or personal delivery service. If a Party delivers a notice by means of facsimile transmission, it must also send a copy of that notice by one of the other means specified above. Parties may alter or modify their notice address by delivery of written notice pursuant to the terms of this Agreement.

To Chevron:

c/o Chevron Environmental Management Company
Marketing Business Unit
145 S. State College Blvd.
Brea, CA 92821-5818
Attn.: Natasha Molla
Phone: (714) 671-3537
Fax: (714) 671-3440

With Copies to:

Soniya D. Ziegler, Esq.
Chevron U.S.A. Inc.
6111 Bollinger Canyon Rd., Suite 425
San Ramon, CA 94583
Phone: (925) 543-1718
Fax: (925) 543-2346

Jill C. Teraoka, Esq.
Bingham McCutchen LLP
355 South Grand Ave., Suite 4400
Los Angeles, CA 90071
Phone: (213) 680-6422
Fax: (213)-680-6499

To the City: City of San Juan Capistrano
32400 Paseo Adelanto
San Juan Capistrano, CA 92675
Attn: [NAME]
Phone: [NUMBER]
Fax: [NUMBER]

With a Copy to: Duane C. Miller, Esq.
Miller Axline & Sawyer
1050 Fulton Avenue, Suite 100
Sacramento, CA 95825
Phone: (916) 488-6688
Fax: (916) 488-4288

13. APPLICABLE LAW

This Agreement shall be interpreted, and any dispute arising hereunder shall be resolved, in accordance with the substantive laws of the State of California, without reference to choice of law rules.

14. ALTERNATIVE DISPUTE RESOLUTION (ADR)

Mindful of the expense and time associated with litigation, the Parties hereby agree as follows:

a. If any controversy or dispute arises between the Parties relating to this Agreement, the Parties agree to use the following procedure prior to pursuing other legal remedies:

(i) A meeting shall be held promptly between the Parties, attended by individuals with decision-making authority regarding the dispute, who will attempt in good faith to negotiate a resolution of the dispute.

(ii) If within fifteen (15) calendar days after the meeting, the Parties have not succeeded in negotiating a resolution of the dispute, they agree to submit the dispute to mediation using a mediator who is mutually acceptable, and to bear equally the costs of the mediation. The Parties agree to participate in good faith in the mediation process related to their dispute for a period of thirty (30) calendar days from the commencement of mediation.

b. If the Parties are not successful in resolving the dispute through the procedures set forth in subsections (a)(i) and (a)(ii) above, then, and only then:

(i) the Parties may agree to submit the matter to binding arbitration or a private adjudicator; or

(ii) either Party may initiate litigation upon ten (10) business days advance written notice to the other Party.

c. Each Party's good faith participation in the procedures set forth in this Section is intended to be and is a condition precedent to the right of each Party to pursue the remedies set forth in subsection (b) above.

d. The Parties recognize that the above procedure will promote settlement, and therefore, is of mutual benefit. Further, each Party understands its obligations under the above procedure and intends such provisions be valid, binding, enforceable, and irrevocable. Neither Party considers these obligations to be vague or in any way unenforceable, and neither will contend to the contrary in the future. Any attempt by a Party to circumvent and/or challenge its obligation to follow the procedures set forth above shall be considered a breach of this Agreement, for which the non-breaching Party shall be entitled to recover in law and/or equity.

15. COUNTERPARTS

This Agreement may be executed in counterparts, all of which together shall constitute one and the same agreement.

16. NO ADMISSION OF LIABILITY

The Parties acknowledge and agree that neither this Agreement, nor the act of entering into it or any act or omission pursuant hereto shall be construed as an admission of any nature.

17. COMPLIANCE WITH LAWS

Throughout the term of this Agreement, Chevron and the City shall at all times comply fully with all applicable laws, ordinances, rules, and regulations of any governmental agency having jurisdiction over the Property.

18. BINDING EFFECT

Subject to the limitations set forth herein, this Agreement shall run with the land and be binding upon and inure to the benefit of the Parties hereto and their respective heirs, successors, and assigns.

19. ATTORNEY'S FEES

If any action at law or in equity is necessary to enforce or interpret the terms of this Agreement, the substantially prevailing party, as determined by a court of competent jurisdiction, shall be entitled to reasonable attorneys' fees, costs, and necessary disbursements in addition to any other relief to which a court of competent jurisdiction deems it is entitled.

20. GENERAL PROVISIONS

If any term or provision of this Agreement shall be deemed by a court of competent jurisdiction to be invalid or unenforceable, the remaining provisions shall remain in full force

and effect. This Agreement contains the entire agreement between the Parties and supersedes all prior agreements. This Agreement may be modified only by an instrument in writing signed by the Parties. Nothing contained herein shall be deemed to make the Parties partners or engaged in a joint venture with one another.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed on the Effective Date set forth above.

CHEVRON:

CHEVRON U.S.A. INC.,
a Pennsylvania corporation

Dated: _____, 2009

By: _____
Name: _____
Its: _____

CITY:

CITY OF SAN JUAN CAPISTRANO

Dated: _____, 2009

By: _____
Name: _____
Its: _____



Natasha Molla
Team Lead, Retail and
C&I-Southwest

**Environmental
Management Company**
Marketing Business Unit
145 S. State College
Boulevard
P.O. Box 2292
Brea, California 92822-2292
Tel 714-671-3537
Fax 714-671-3440
natashamolla@chevron.com

December 1, 2009

Mr. Joe Tait
Interim Utilities Director
City of San Juan Capistrano
32400 Paseo Adelanto
San Juan Capistrano, CA 92675

**Re: Revised Preliminary Design Report
Chevron MtBE Remediation System
Dance Hall Wellhead Treatment**

Dear Mr. Tait:

Enclosed for the City of San Juan Capistrano's (City) review is the revised Preliminary Design Report (PDR) for the remediation of the MtBE plume using the Dance Hall Well as the pumping well. The PDR was prepared for Chevron U.S.A. Inc. (Chevron) by Malcolm Pirnie, Inc. (Malcolm Pirnie). It provides the information and engineering that will be used to complete the design and construction documents that are necessary to build the treatment system. The PDR is the next step in compliance with the Interim Remedial Action Plan (IRAP), which was accepted on May 14, 2008, by the Orange County Health Care Agency Local Oversight Program (OCLOP), and Cleanup and Abatement Order No. R9-2009-0124 (CAO), which was issued by the Regional Water Quality Control Board, San Diego Region (SDRWQCB) on September 3, 2009, and revised on September 28, 2009.

During the technical meeting held on October 29, 2009, which was attended by Barry Pulver of the SDRWQCB, the City agreed to provide Chevron with the 80% design package for Groundwater Recovery Plant (GWRP) expansion. In subsequent letters to you dated November 6, 2009, and November 20, 2009, I asked that the City provide Chevron with this design package. However, Chevron has not yet received the City's 80% design. It would have been helpful for Chevron to have received the promised design package for the GWRP expansion prior to completing the PDR. However, given the deadlines in the CAO (including for beginning the construction of the IRAP), it was necessary for Malcolm Pirnie to proceed with the PDR based on information provided to Malcolm Pirnie by the City staff during the November

Mr. Joe Tait
December 1, 2009
Page 2

12, 2009 technical meeting. Nevertheless, Chevron will need to have the requested, and promised, GWRP expansion design package prior to completing the 100% design of the remediation system. Please note that the enclosed PDR includes the first item set forth on the first page of Mr. Pulver's November 12, 2009 letter.¹ After Chevron receives the City's 80% design package for GWRP expansion, Chevron will prepare the 100% design plans for the treatment system.

We would like to meet with you and your technical staff to discuss the PDR on Friday, December 11, 2009. Please advise if this date is acceptable and provide your written comments by Wednesday, December 9, 2009 to allow sufficient time for our technical consultants to prepare for the meeting.

Sincerely,



Natasha Molla

Enclosure

cc: Mr. Pulver, SDRWQCB

¹ This item is documentation that the two treatment trains proposed by Chevron will have sufficient capacity to remove petroleum hydrocarbons from the Dance Hall well at extraction rates of up to 1,000 gallons per minute.

File 06.023-ENGR

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GWRP.Wells-WQ-2004.pdf

Capistrano Well Water Quality Analysis

BK-C68-200-85

BOYLE

1501 Quail Street Newport Beach, CA 92660

EXHIBIT 90

Capistrano Well Water Quality Analysis

Water quality results for the six new Capistrano wells have been reviewed. Not all of the unregulated constituents data have been returned, however, there is enough information to determine blended well water quality for the purpose of plant design¹. The six wells covered in this analysis are listed below.

- Capistrano Valley Water District (CVWD1)
- Dance Hall
- Kinoshita
- San Juan Basin 2 (SJBA 2)
- San Juan Basin 4 (SJBA 4)
- Tirador

Individually, each well produces water with one or more constituent(s) above the Design Raw Water Quality (DRWQ). Since the raw water from the well is blended at the plant, the impact of a well with a high concentration of a particular constituent is somewhat mitigated by blending with wells with a lower concentration of that constituent. However, under certain operating scenarios, even blending could not keep strontium or manganese concentrations at or below the design water quality. This may present a tangible impact to O&M chemical costs.

Well Water Quality at a glance

Table 1 displays the DRWQ and the raw water quality of each well. The constituents with constituents above the DRWQ are bolded.

Capistrano Valley Water District (CVWD-1)

CVWD-1 is one of the best wells in water quality and production compared with the other six wells. With the exception of radon and strontium, the remaining constituents in its well water are below the DRWQ value. It produces the least amount of manganese, hardness, and second lowest in iron amongst the pool of wells. It is capable of producing over 1,000 gpm.

Dance Hall

The Dance Hall well has the worst water quality, but is still an adequate producer, capable of generating up to 1,000 gpm. The concentrations of iron, manganese, arsenic, and TDS from the Dance hall well water are the highest amongst the six wells and exceed the DRWQ. It also has the highest alkalinity and second highest turbidity amongst the six wells.

¹ Sampling for silica has not been completed as of 5/27/04. High concentration of silica will negatively impact RO recovery and increase membrane cleaning and anti-scaling chemical consumption.

Kinoshita

The Kinoshita well is the least productive well amongst the six, but has the one of the best water qualities. Most constituents in its water are below the DRWQ with the exception of strontium, and concentration of iron is slightly elevated, close to the DRWQ value. The only drawback is that this well only produces about 500 gpm, or half the volume of the other wells.

San Juan Basin 2 (SJBA 2)

SJBA2 is a good well, capable of producing over 1,000 gpm. It has a moderate water quality, with strontium and nickel exceeding the DRWQ values and nitrate and sulfate slightly exceeding the DRWQ. With the exception of strontium, the other constituents will be manageable with the blending and treatment of the well waters.

San Juan Basin 4 (SJBA 4)

Similar the SJBA2, SJBA4 is good well, producing ~1,000 gpm, with an adequate water quality. Most of its water constituents are below the DRWQ with the exception of strontium and nitrate. Only strontium will create a problem or incur additional O&M cost for the treatment process.

Currently, only radon results from sampling CVWD1 and SJBA4 have been received, while the radon results sampled from the other wells are still pending. The DRWQ value for radon reflects the maximum contamination level (MCL) proposed by EPA. Water from both wells exceeds this proposed MCL of 300 pico curies per liter (pCi/L). Note that radon is not removed from the water by the processes included in the treatment plant

Tirador

The Tirador well is a good producer capable of generating ~1,000 gpm, but it is the second worst in water quality amongst the six wells. Its concentrations of arsenic, calcium, fluoride, iron manganese, nitrate, sulfate, strontium and turbidity all exceed the DRWQ, with some exceeding the DRWQ by over 200%.

Table 2 contains the entire list of water quality data sampled from all six wells, including specific organics and unregulated constituents. Constituents required by the California Department of Health Services' Primary Drinking Water Standards are denoted 'CDHS' on the right. Actual and proposed maximum contaminant levels set by CDHS are also included when available. Subsequent well samples will be taken to obtain the missing data points not shown in **Tables 1 and 2**.

Blending Scenario

Since each of the wells has one to several constituents that are higher than the DRWQ, it is logical to blend their waters to meet the raw water quality goals. Based on the water qualities presented in **Table 1**, three blending scenarios are presented. Due to the natural groundwater conditions in the area, neither strontium nor radon can be blended down. However, Radon is an unregulated constituent and the DRWQ value merely reflects the MCL proposed, but not enforced by the EPA.

Plant Operation at full capacity (2 Trains) – All six wells in services

The first blending scenario involves the use of all six wells to operate both RO trains in the plant. **Table 3** illustrates the averaged water quality from the blended well water of all six wells. Since the cumulative potential output from these wells will be greater than the 4,270 gpm required to operate the plant at full capacity, it is assumed either the pumps will be designed with a lower capacity or the line pressure in the water transmission lines will increase. The use of all six wells is very unlikely due to the limited capacity constraint and the use of one well as a stand-by well. The stand-by well will rotate among all wells except for Kinoshita, due to its unique pumping capacity.

Plant Operation at full capacity (2 Trains) – Five wells in services

Since the plant only requires 4,270 gpm at full capacity, this scenario only requires five of the wells to be in service, while the sixth well can serve as a standby well. Given the poor water qualities from the Dance Hall and Tirador wells, it is recommended that either one of these wells should serve as the standby well a majority of the time to reduce O&M treatment cost. **Table 4** illustrates the averaged water quality from the blended well water of CVWD1, Kinoshita, SJBA2, SJBA4, and Tirador. Should it become necessary to operate both Dance Hall and Tirador wells in a five well scenario, the manganese concentration will exceed the DRWQ value of 880 ug/L by 10 ug/L to an averaged blended concentration of 890 ug/L as seen in **Table 5**.

Plant Operation at half capacity (1 Train) – Three wells in services

About 2,140 gpm of water is required to operate one train, or half the plant capacity. This scenario will present a three well scenario using the wells with the better water quality. The wells include the lower producing Kinoshita and the larger CVWD1 and SJBA4. It is assumed if a well failure occurs, SJBA2 will be brought into service to compensate the lost water production. **Table 6** illustrates the averaged water quality from the blended well water.

Presently, it is most important to sample for silica from each well to determine its fouling potential to the RO system and to sample all constituents required by the CDHS to meet drinking water standards. A new set of samples has already been taken and being analyzed. The remaining unregulated constituents found in **Table 2** are merely used for monitoring by the EPA. These constituents could be sampled for at a later date and should not affect plant startup.

TABLE 1 - DESIGN AND NEW WELL WATER QUALITY

Constituent	Units	DRWQ	CVWD1-4	Dance Hall 2	Kinoshita	SJBA-2	SJBA-4	Tirador
Aluminum	ug/L	63	ND	4	16	13	ND	2.5
Antimony	ug/L	5	ND	ND	2.3	ND	ND	ND
Aroma	units	2	1	2	1	1	1	2
Arsenic	ug/L	9	ND	17	ND	ND	ND	16
Barium	ug/L	107	43	69	95	54	59	50
Beryllium	ug/L	4	ND	ND	ND	ND	ND	ND
Bicarbonate	mg/L	363	263	348	265	268	272	327
Cadmium	ug/L	0.5	ND	ND	ND	ND	ND	ND
Calcium	mg/L	231	230	280	210	220	220	250
Chloride	mg/L	277	212	300	165	224	211	270
Chromium	ug/L	2.7	ND	ND	ND	ND	ND	ND
Color	units	92	1.0	23.0	6.0	1.0	1.0	21.6
Copper	ug/L	17	ND	ND	ND	7.8	ND	ND
Fluoride	ug/L	765	510	140	760	530	640	2005
Gross Alpha	pCi/L	15	3.41	3.22			3.18	1.1
Gross Beta	pCi/L	50	4.64	5.02			3.51	3.29
Iron	ug/L	2310	270	4,100	2,000	270	220	3,600
Lead	ug/L	3.6	ND		ND	ND	ND	
Magnesium	mg/L	72	46	82	44	48	49	63
Manganese	ug/L	880	100	2,100	340	220	480	1,600
Mercury	ug/L	0.5	ND	ND	ND	ND	ND	ND
Nickel	ug/L	10	ND	16	3.5	11	4	3.9
Nitrate (as NO3)	mg/L	5.2	2.3	15.1		9.8	8.4	38
Potassium	mg/L	5.1	3.5	5.6	4.4	3.7	5.4	6.2
Radon	pCi/L	300	466				419	
Selenium	ug/L	5	ND	9.1	ND	2.1	2.4	4
Silica	ug/L	27813						
Silver	ug/L	1	ND	ND	ND	ND	ND	ND
Sodium	mg/L	227	150	250	100	160	170	320
Specific Organics	ug/L	*			See Table 2			
Strontium	ug/L	805	1,100		1,100	1,100	1,100	
Sulfate	mg/L	525	420	900	390	600	475	760
TDS*	mg/L	1705.3	1,290	2,200	1,070	1,500	1,270	1,840
Thallium	ug/L	1	ND	ND	ND	ND	ND	ND
TOC	mg/L	2.2	0.58		1.4	1.1	ND	
Turbidity	NTU	30	0.52	25.4	21.9	0.33	0.84	58.5
Zinc	ug/L	148	71	19	22	47	31	32

'ND' indicates Not Detected

A blank cell indicates data not yet available

* The maximum allowable drinking water contaminant levels for specific organics set forth in the Safe Drinking Water Act shall serve to establish the Design Raw Water Quality (DRWQ) limit for the specific organics for the purpose of this report

Table 2 - Complete Water Quality, including Specific Organics & Unregulated Constituents

		Sample Date	4/7/04	11/10/03	5/4/04	4/27/04	3/1/04	1/6/04	
Constituent	Units	MCL (ug/L)	CVWD-1	Dance Hall	Kinoshita	SJBA-2	SJBA-4	Tirador	Req'r?
1,1,1,2-Tetrachloroethane	ug/L		ND	ND	ND	ND	ND	ND	
1,1,1-Trichloroethane	ug/L	200	ND	ND	ND	ND	ND	ND	cdhs
1,1,2,2-Tetrachloroethane	ug/L	1	ND	ND	ND	ND	ND	ND	cdhs
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	1.2	ND	ND	ND	ND	ND	ND	cdhs
1,1,2-Trichloroethane	ug/L	5	ND	ND	ND	ND	ND	ND	cdhs
1,1-Dichloroethane	ug/L	5	ND	ND	ND	ND	ND	ND	cdhs
1,1-Dichloroethylene	ug/L	6	ND	ND	ND	ND	ND	ND	cdhs
1,1-Dichloropropene	ug/L		ND	ND	ND	ND	ND	ND	
1,2,3-Trichlorobenzene	ug/L		ND	ND	ND	ND	ND	ND	
1,2,3-Trichloropropane	ug/L		ND	ND	ND	ND	ND	ND	
1,2,4-Trichlorobenzene	ug/L	5	ND	ND	ND	ND	ND	ND	cdhs
1,2,4-Trimethylbenzene	ug/L		ND	ND	ND	ND	ND	ND	
1,2-Dibromoethane	ug/L		ND	ND	ND	ND	ND	ND	
1,2-Dichlorobenzene	ug/L	600	ND	ND	ND	ND	ND	ND	cdhs
1,2-Dichloroethane	ug/L	0.5	ND	ND	ND	ND	ND	ND	cdhs
1,2-Dichloropropane	ug/L	5	ND	ND	ND	ND	ND	ND	cdhs
1,3,5-Trimethylbenzene	ug/L		ND	ND	ND	ND	ND	ND	
1,3-Dichlorobenzene	ug/L		ND	ND	ND	ND	ND	ND	
1,3-Dichloropropane	ug/L		ND	ND	ND	ND	ND	ND	
1,4-Dichlorobenzene	ug/L	5	ND	ND	ND	ND	ND	ND	cdhs
2,2-Dichloropropane	ug/L		ND	ND	ND	ND	ND	ND	
2,3,7,8-TCDD (Dioxin)	ug/L	0.00003	ND	ND	ND	ND	ND	ND	cdhs
2,4,5-T	ug/L		ND	ND	ND	ND	ND	ND	
2,4,5-TP (Silvex)	ug/L	50	ND	ND	ND	ND	ND	ND	cdhs
2,4-D	ug/L	70	ND	ND	ND	ND	ND	ND	cdhs
2,4-DB	ug/L		ND	ND	ND	ND	ND	ND	
2-Chloroethylvinyl ether	ug/L		ND	ND	ND	ND	ND	ND	
2-Chlorotoluene	ug/L		ND	ND	ND	ND	ND	ND	
3,5-Dichlorobenzoic acid	ug/L		ND	ND	ND	ND	ND	ND	
3-Hydroxycarbofuran	ug/L		ND	ND		ND	ND	ND	
4-Chlorotoluene	ug/L		ND	ND	ND	ND	ND	ND	
Acifluorfen	ug/L		ND	ND	ND	ND	ND	ND	
Alachlor	ug/L	2	ND	ND	ND	ND	ND	ND	cdhs
Aldicarb	ug/L		ND	ND		ND	ND	ND	
Aldicarb Sulfone	ug/L		ND	ND		ND	ND	ND	
Aldicarb Sulfoxide	ug/L		ND	ND		ND	ND	ND	
Aldrin	ug/L	0.05	ND	ND	ND	ND	ND	ND	
Alkalinity (CaCO ₃)	mg/L		ND	ND	ND	ND	ND	ND	
Aluminum	ug/L	200	ND	3.5	16	13	ND	2.5	cdhs
Antimony	ug/L	6	ND	ND	2.3	ND	ND	ND	cdhs
Arsenic	ug/L	50	ND	ND	ND	ND	ND	16	cdhs
Asbestos	MFL	7	ND	ND	ND	ND	ND	ND	cdhs
Atrazine	ug/L	1	ND	ND	ND	ND	ND	ND	cdhs
Barium	ug/L	1000	43	69	95	54	59	50	cdhs
Bentazon	ug/L	18	ND	ND	ND	ND	ND	ND	cdhs
Benzene	ug/L	1	ND	ND	ND	ND	ND	ND	cdhs
Benzo(a)pyrene	ug/L	0.2	ND	ND		ND	ND	ND	cdhs

Sample Date			4/7/04	11/10/03	5/4/04	4/27/04	3/1/04	1/6/04	
Constituent	Units	MCL (ug/L)	CVWD-1	Dance Hall	Kinoshita	SJBA-2	SJBA-4	Tirador	Req'r?
Beryllium	ug/L	4	ND	ND	ND	ND	ND	ND	cdhs
Bicarbonate Alkalinity	mg/L		263	348	265	268	272	327	
Boron	mg/L		0.17	0.43	0.12	0.2	0.25	0.57	
Bromacil (HYVAR)	ug/L		ND	ND		ND	ND	ND	
Bromobenzene	ug/L		ND	ND	ND	ND	ND	ND	
Bromochloromethane	ug/L		ND	ND	ND	ND	ND	ND	
Bromodichloromethane	ug/L		ND	ND	ND	ND	ND	ND	
Butachlor	ug/L		ND	ND		ND	ND	ND	
Cadmium	ug/L	5	ND	ND	ND	ND	ND	ND	cdhs
Calcium	mg/L		230	280	210	220	220	250	
Carbaryl (SEVIN)	ug/L	60	ND	ND		ND	ND	ND	
Carbofuran	ug/L	18	ND	ND		ND	ND	ND	cdhs
Carbon tetrachloride	ug/L	0.5	ND	ND	ND	ND	ND	ND	cdhs
Chlordane	ug/L	0.1	ND	ND	ND	ND	ND	ND	cdhs
Chlordane alpha	ug/L		ND	ND	ND	ND	ND	ND	
Chlordane gamma	ug/L		ND	ND	ND	ND	ND	ND	
Chloride	mg/L	250	212	300	165	224	211	270	cdhs
Chlorobenzene	ug/L	100	ND	ND	ND	ND	ND	ND	
Chloroethane	ug/L		ND	ND	ND	ND	ND	ND	
Chloroform	ug/L		ND	ND	ND	ND	ND	ND	
Chloromethane	ug/L		ND	ND	ND	ND	ND	ND	
Chromium	ug/L	50	ND	ND	ND	ND	ND	ND	cdhs
Chromium (VI)	ug/L		ND	ND	ND	ND	ND	ND	
cis-1,2-Dichloroethylene	ug/L	6	ND	ND	ND	ND	ND	ND	cdhs
cis-1,3-Dichloropropene	ug/L	0.5	ND	ND	ND	ND	ND	ND	cdhs
cis-Nonachlor	ug/L		ND	ND	ND	ND	ND	ND	
Color	Units	15							
Color	Units	Units	1	23	6	1	1	21.6	cdhs
Radium 226/228	pCi/L	5	Only if MCL for Gross Alpha particles are exceeded						cdhs
Copper	ug/L	1000	ND	ND	ND	7.8	ND	ND	cdhs
Cyanide	mg/L	15	ND	ND	ND	ND	ND	ND	cdhs
Dalapon	ug/L	200	ND	ND	ND	ND	ND	ND	cdhs
Di(2-ethylhexyl) phthalate	ug/L	4	ND	ND		ND	ND	ND	cdhs
Di(2-ethylhexyl)adipate	ug/L	400	ND	ND		ND	ND	ND	cdhs
Diazinon	ug/L		ND	ND		ND	ND	ND	
Dibromochloromethane	ug/L		ND	ND	ND	ND	ND	ND	
Dibromochloropropane	ug/L	0.2	ND	ND	ND	ND	ND	ND	cdhs
Dibromomethane	ug/L		ND	ND	ND	ND	ND	ND	
Dicamba (BANVEL)	ug/L		ND	ND	ND	ND	ND	ND	
Dichlorodifluoromethane	ug/L		ND	ND		ND	ND	ND	
Dichloromethane	ug/L	5			See Ethylene Dichloride				
Dichloroprop	ug/L		ND	ND	ND	ND	ND	ND	
Dieldrin	ug/L	0.05	ND	ND	ND	ND	ND	ND	
Diethyl phthalate (DEHP)	ug/L				See Di (2 ethylhexyl) phthalate				
Di-isopropyl ether	ug/L		ND	ND	ND	ND	ND	ND	
Dimethoate (CYGON)	ug/L		ND	ND		ND	ND	ND	
Dinoseb	ug/L	7	ND	ND	ND	ND	ND	ND	cdhs
Diquat	ug/L	20	ND	ND		ND	ND	ND	cdhs
Diuron	ug/L								
E. Coli			Absent	Absent	<2	Absent	Absent	Absent	

Sample Date			4/7/04	11/10/03	5/4/2004	4/27/04	3/1/04	1/6/04	
Constituent	Units	MCL (ug/L)	CVWD-1	Dance Hall	Kinoshita	SJBA-2	SJBA-4	Tirador	Req'r?
EC (specific conductance)	umhos/cm	900-1600	1880	3160	1540	2140	1820	2610	cdhs
Endothall	ug/L	100	ND	ND		ND	ND	ND	cdhs
Endrin	ug/L	2	ND	ND	ND	ND	ND	ND	cdhs
Ethyl t-butyl ether (Ethyl Tert-butyl Ether)	ug/L		ND	ND	ND	ND	ND	ND	
Ethylbenzene	ug/L	300	ND	ND	ND	ND	ND	ND	cdhs
Ethylene dibromide (EDB)	ug/L	0.05	See 1,2 Dibromoethane						cdhs
Fecal Coliforms			Absent	Absent	<2	Absent	Absent	Absent	
Fluoride	mg/L	2	0.51	0.14	0.76	0.53	0.64	2.05	cdhs
gamma-BHC (Lindane)	ug/L	0.2	ND	ND	ND		ND	ND	
Glyphosate	ug/L	700	ND	ND		ND	ND	ND	cdhs
Gross Alpha	pCi/L	15	3.41	3.22			3.18	1.1	cdhs
Gross Beta Particle	pCi/L	50	4.64	5.02			3.51	3.29	cdhs
Heptachlore epoxide	ug/L	0.01	ND	ND	ND	ND	ND	ND	cdhs
hexachlorobenzene	ug/L	1	ND	ND	ND	ND	ND	ND	cdhs
Hexachlorobutadiene	ug/L		ND	ND	ND	ND	ND	ND	
Hexachlorocyclopentadiene	ug/L	50	ND	ND	ND	ND	ND	ND	cdhs
Hydroxide Alkalinity	mg/L		ND	ND	ND	ND	ND	ND	
Iron	ug/L	300	270	4100	2000	270	220	3600	cdhs
Isopropylbenzene (Cumene)	ug/L		ND	ND	ND	ND	ND	ND	
Langelier Index			-0.24	0.47	0.15	0.54	0.13	0.76	
Lead	ug/L	15	ND		ND	ND	ND		cdhs
Lindane	ug/L	0.2	ND	ND	ND	ND	ND	ND	cdhs
Magnesium	mg/L		46	82	44	48	49	63	
Manganese	ug/L	50	100	2100	340	220	480	1600	cdhs
Mercury	ug/L	2	ND	ND	ND	ND	ND	ND	cdhs
Methiocarb	ug/L		ND	ND		ND	ND	ND	
Methomyl	ug/L		ND	ND		ND	ND	ND	
Methoxychlor	ug/L	40	ND	ND	ND	ND	ND	ND	cdhs
Methyl Blue Active Substances (MBAS - Foaming Agent)	mg/L	500	ND	ND	ND	ND	ND	ND	
Methyl ethyl ketone	ug/L		ND	ND	ND	ND	ND	ND	
Methyl Isobutyl ketone	ug/L		ND	ND	ND	ND	ND	ND	
Methyl t-butyl ether (MTBE)	ug/L	5	ND	ND	ND	ND	ND	ND	cdhs
Methylene chloride	ug/L		ND	ND	ND	ND	ND	ND	
Metolachlor	ug/L		ND	ND		ND	ND	ND	
Metribuzin (Sencore)	ug/L		ND	ND		ND	ND	ND	
Molinate	ug/L	20	ND	ND		ND	ND	ND	cdhs
Naphthalene	ug/L		ND	ND	ND	ND	ND	ND	
n-Butylbenzene	ug/L		ND	ND	ND	ND	ND	ND	
Nickel	ug/L	100	ND	16	3.5	11	4	3.9	cdhs
Nitrate (NO3)	mg/L	45	2.3	15.1	2.7	9.79	8.4	37.8	cdhs
Nitrite (N)	ug/L	1000	ND	ND	ND	ND	ND	0.03	cdhs
n-Propylbenzene	ug/L		ND	ND	ND	ND	ND	ND	

Sample Date			4/7/04	11/10/03	5/4/2004	4/27/04	3/1/04	1/6/04	
Constituent	Units	MCL (ug/L)	CVWD1-4	Dance Hall	Kinoshita	SJBA-2	SJBA-4	Tirador	Req'r?
Odor	Odor Unit	3 Units	1	2	1	1	1	2	cdhs
Oxamyl	ug/L	50	ND	ND		ND	ND	ND	cdhs
o-Xylene	ug/L		ND	ND	ND	ND	ND	ND	
p- & m-Xylenes	ug/L		ND	ND	ND	ND	ND	ND	
Paraquat	ug/L		ND	ND		ND	ND	ND	
PCB-1016	ug/L		ND	ND	ND	ND	ND	ND	
PCB-1221	ug/L		ND	ND	ND	ND	ND	ND	
PCB-1232	ug/L		ND	ND	ND	ND	ND	ND	
PCB-1242	ug/L		ND	ND	ND	ND	ND	ND	
PCB-1248	ug/L		ND	ND	ND	ND	ND	ND	
PCB-1254	ug/L		ND	ND	ND	ND	ND	ND	
PCB-1260	ug/L		ND	ND	ND	ND	ND	ND	
Pentachlorophenol	ug/L	1	ND	ND	ND	ND	ND	ND	cdhs
Perchlorates	ug/L	18	ND	ND		ND	ND	ND	
pH (Lab)	pH Units	6.5-8.5	6.78	7.12	7.02	7.43	6.97	7.5	
Phthalates	ug/L								
Pichloram	ug/L	500	ND	ND	ND	ND	ND	ND	cdhs
p-Isopropyltoluene	ug/L		ND	ND	ND	ND	ND	ND	
Polychlorinated Biphenyls (PCB)	ug/L	0.5	ND	ND	ND	ND	ND	ND	cdhs
Polycyclic Acrylic Hydr carbons	ug/L								
Potassium	mg/L		3.5	5.6	4.4	3.7	5.4	6.2	
Prometon	ug/L		ND	ND		ND	ND	ND	
Prometryne	ug/L		ND	ND		ND	ND	ND	
Radium 228	pCi/L	3	Sample required only if MCL for Gross Alpha particles are exceeded						cdhs
Radon 222	pCi/L	300	466				419		
sec-Butylbenzene	ug/L		ND	ND	ND	ND	ND	ND	
Selenium	ug/L	50	ND	9.1	ND	2.1	2.4	4	cdhs
Silica	ug/L								
Silver	ug/L	100	ND	ND	ND	ND	ND	ND	cdhs
Simazine	ug/L	4	ND	ND	ND	ND	ND	ND	cdhs
Sodium	mg/L		150	250	100	160	170	320	
Strontium	mg/L		1.1		1.1	1.1	1.1		
Strontium 90	pCi/L	8	0.19	0.15			0.24	0.37	cdhs
Styrene	ug/L	100	ND	ND	ND	ND	ND	ND	cdhs
Sulfate	mg/L	200-500	420	900	390	600	475	760	cdhs
t-Amyl Methyl ether (Tert-amyl Methyl Ether)	ug/L		ND	ND	ND	ND	ND	ND	
t-Butyl alcohol	ug/L		ND	ND	ND	ND	ND	ND	
TDS total dissolved solids	mg/L	500	1290	2200	1070	1500	1270	1840	cdhs
tert-Butylbenzene	ug/L		ND	ND	ND	ND	ND	ND	
Tetrachloroethylene	ug/L	5	ND	ND	ND	ND	ND	ND	cdhs

Sample Date			4/7/04	11/10/03	5/4/2004	4/27/04	3/1/04	1/6/04	
Constituent	Units	MCL (ug/L)	CVWD1-4	Dance Hall	Kinoshita	SJBA-2	SJBA-4	Tirador	Req'r?
Thallium	ug/L	2	ND	ND	ND	ND	ND	ND	cdhs
Thiobencarb	ug/L	1	ND	ND		ND	ND	ND	cdhs
Toluene	ug/L	150	ND	ND	ND	ND	ND	ND	cdhs
Total Alkalinity (CaCO3)	mg/L		263	348	265	268	272	327	
Total Coliforms	%	0.05	Absent	Absent	17	Absent	Absent	Absent	
Total Nitrate/Nitrite	mg/L		2.3	3.4	2.71	2.1	1.9	8.53	
Total Organic Carbon	mg/L		0.58		1.4	1.1	ND		
Total Trihalomehtanes	ug/L	80	ND	ND	ND	ND	ND	ND	
Total Xylenes	ug/L	1750		See o-xylene, p & m-xylene					cdhs
Toxaphene	ug/L	3	ND	ND	ND	ND	ND	ND	cdhs
trans-1,2-Dichloroethylene	ug/L	10	ND	ND	ND	ND	ND	ND	cdhs
trans-1,3-Dichloropropene	ug/L	0.5	ND	ND	ND	ND	ND	ND	cdhs
trans-Nonachlor	ug/L		ND	ND	ND	ND	ND	ND	
Trichloroethylene	ug/L	5	ND	ND	ND	ND	ND	ND	cdhs
Trichlorofluoromethane	ug/L	150	ND	ND	ND	ND	ND	ND	cdhs
Tritium	pCi/L	20,000	114	42.5			193	255	cdhs
TTL-Filterable Residue @ 180C									
Turbidity	NT Units	5	0.52	25.4	21.9	0.33	0.84	58.5	cdhs
Uranium	pCi/L	20							cdhs
Vanadium	ug/L		ND	ND	ND	ND	ND	ND	
Vinyl chloride	ug/L	0.5	ND	ND	ND	ND	ND	ND	cdhs
Zinc	ug/L	5,000	71	19	22	47	31	32	cdhs

Table 3 - Blended Water Quality with six wells
CVWD1, Dance Hall, Kinoshita, SJBA2, SJBA4, & Tirador

Constituent	Units	DRWQ	Average
Aluminum	ug/L	63	5
Antimony	ug/L	5	0
Aroma	units	2	1
Arsenic	ug/L	9	7
Barium	ug/L	107	54
Beryllium	ug/L	4	0
Bicarbonate	mg/L	363	268
Cadmium	ug/L	0.5	0.0
Calcium	mg/L	231	218
Chloride	mg/L	277	217
Chromium	ug/L	2.7	0.0
Color	units	92	8.4
Copper	ug/L	17	1.6
Fluoride	ug/L	765	701
Gross Alpha	pCi/L	15	2.7
Gross Beta	pCi/L	50	4.1
Iron	ug/L	2,310	1,577
Lead	ug/L	3.6	0.0
Magnesium	mg/L	72	52
Manganese	ug/L	880	778
Mercury	ug/L	0.5	0.0
Nickel	ug/L	10	6
Nitrate (as NO3)	mg/L	5.2	14.7
Potassium	mg/L	5.1	4.4
Radon	pCi/L	300	443
Selenium	ug/L	5	4
Silica	ug/L	27,813	n/a
Silver	ug/L	1.0	0.0
Sodium	mg/L	227	178
Strontium	ug/L	805	963
Sulfate	mg/L	525	558
TDS	mg/L	1,705	1,439
Thallium	ug/L	1.0	0.0
TOC	mg/L	2.2	0.6
Turbidity	NTU	30	16
Zinc	ug/L	148	35

**Table 4 - Blended Water Quality with five wells
CVWD1, Kinoshita, SJBA2, SJBA4, & Tirador**

Constituent	Units	DRWQ	Average
Aluminum	ug/L	63	4.7
Antimony	ug/L	5	0.2
Aroma	units	2	1.1
Arsenic	ug/L	9	4.0
Barium	ug/L	107	51
Beryllium	ug/L	4	0.0
Bicarbonate	mg/L	363	253
Cadmium	ug/L	0.5	0.0
Calcium	mg/L	231	205
Chloride	mg/L	277	200
Chromium	ug/L	2.7	0.0
Color	units	92	5.5
Copper	ug/L	17	2.0
Fluoride	ug/L	765	813
Gross Alpha	pCi/L	15	2.6
Gross Beta	pCi/L	50	3.8
Iron	ug/L	2,310	1,072
Lead	ug/L	3.6	0.0
Magnesium	mg/L	72	46
Manganese	ug/L	880	514
Mercury	ug/L	0.5	0.0
Nickel	ug/L	10	4.1
Nitrate (as NO3)	mg/L	5.2	15
Potassium	mg/L	5.1	4.2
Radon	pCi/L	300	443
Selenium	ug/L	5	2.1
Silica	ug/L	27,813	n/a
Silver	ug/L	1	0.0
Sodium	mg/L	227	164
Strontium	ug/L	805	963
Sulfate	mg/L	525	490
TDS	mg/L	1,705	1,287
Thallium	ug/L	1	0.0
TOC	mg/L	2.2	0.6
Turbidity	NTU	30	14
Zinc	ug/L	148	38

**Table 5 - Blended Water Quality with five wells
CVWD1, Kinoshita, Dance hall, SJBA4, & Tirador**

Constituent	Units	DRWQ	Average
Aluminum	ug/L	63	2.8
Antimony	ug/L	5	0.2
Aroma	units	2	1.3
Arsenic	ug/L	9	8.3
Barium	ug/L	107	54
Beryllium	ug/L	4	0.0
Bicarbonate	mg/L	363	269
Cadmium	ug/L	0.5	0.0
Calcium	mg/L	231	217
Chloride	mg/L	277	215
Chromium	ug/L	2.7	0.0
Color	units	92	9.9
Copper	ug/L	17	0.0
Fluoride	ug/L	765	735
Gross Alpha	pCi/L	15	2.7
Gross Beta	pCi/L	50	4.1
Iron	ug/L	2,310	1,838
Lead	ug/L	3.6	0.0
Magnesium	mg/L	72	52
Manganese	ug/L	880	890
Mercury	ug/L	0.5	0.0
Nickel	ug/L	10	5.1
Nitrate (as NO3)	mg/L	5.2	16
Potassium	mg/L	5.1	4.6
Radon	pCi/L	300	443
Selenium	ug/L	5	3.9
Silica	ug/L	27,813	n/a
Silver	ug/L	1	0.0
Sodium	mg/L	227	182
Strontium	ug/L	805	917
Sulfate	mg/L	525	550
TDS	mg/L	1,705	1,427
Thallium	ug/L	1	0.0
TOC	mg/L	2.2	0.4
Turbidity	NTU	30	19
Zinc	ug/L	148	33

Table 6 - Blended Water Quality with three wells

CVWD1, Kinoshita, & SJBA4

Constituent	Units	DRWQ	Average
Aluminum	ug/L	63	2.7
Antimony	ug/L	5	0.4
Aroma	units	2	0.8
Arsenic	ug/L	9	0.0
Barium	ug/L	107	50
Beryllium	ug/L	4	0.0
Bicarbonate	mg/L	363	223
Cadmium	ug/L	0.5	0.0
Calcium	mg/L	231	185
Chloride	mg/L	277	169
Chromium	ug/L	2.7	0.0
Color	units	92	1.7
Copper	ug/L	17	0.0
Fluoride	ug/L	765	510
Gross Alpha	pCi/L	15	3.3
Gross Beta	pCi/L	50	4.1
Iron	ug/L	2,310	497
Lead	ug/L	3.6	0.0
Magnesium	mg/L	72	39
Manganese	ug/L	880	250
Mercury	ug/L	0.5	0.0
Nickel	ug/L	10	1.9
Nitrate (as NO3)	mg/L	5.2	5.4
Potassium	mg/L	5.1	3.7
Radon	pCi/L	300	443
Selenium	ug/L	5	1.2
Silica	ug/L	27,813	n/a
Silver	ug/L	1	0.0
Sodium	mg/L	227	182
Strontium	ug/L	805	917
Sulfate	mg/L	525	363
TDS	mg/L	1,705	1,032
Thallium	ug/L	1	0.0
TOC	mg/L	2.2	0.4
Turbidity	NTU	30	4.1
Zinc	ug/L	148	38

WELL DRILLING AND CONSTRUCTION SUMMARY

Capistrano Valley Water District - San Juan Basin Desalter Project

Well I.D.:	Dance Hall Well	
	Depth (feet bgs)	Description
Aquifer Materials (depth in feet below ground surface)	65-80	fine-med sand
	80-94	fine-cse sand with gravel lenses
	94-113	sand, gravel, cobbles
Capistrano Fm. (top depth, feet bgs)	113	
Well Completion		
Blank Casing (feet bgs)	0-77.5	
Screen Interval (feet bgs)	77.5-107.5	
Slot Size (inch)	0.070	
Filter Pack Interval (feet bgs)	50-113	
Filter Pack Gradation	6 x 12	
Cellar Interval (feet bgs)	107.5-110.5	
Sanitary Seal (feet bgs)	0-50	
Well Capacity		
Rate of Constant Rate Test (gpm)		1000
Specific Capacity (gpm/ft)		21.6
Pumping Level (feet bgs)		64.7
Estimated Longterm Pumping Rate (gpm)		1000

DEC. 3. 2003 3:04PM

BOYLE ENGINEERING

NO. 484 P. 2 P. 5

Pump Test Report

Date: 11-07-03
Customer: M88
Discharge Pipe: 8"
Office Dia: N/A
Bow Used: 12 N/KH
Hours Pumped This Day: 10

Tested By: Doug Johnson
Well Depth: 109'
Well I.D.: 16"
Static Level: 18.5'
Type Perfs: R.M. W.W. Screen
Hours Pumped To Date: 34

Location: Dance Hall
Remarks: Step Test
Page: 4

South West Pump & Drilling
53-381 Highway 111
Coachella, CA 92236
Office: 800.770.7860
Fax: 760.398.2287

Time	Office "	G.P.M.	S.W.L.	Pumping Level	Drawdown	Eng R.P.M.	Yield	Clean Up Time	Remarks
00:00:00 6:00 AM	N/A	833	18.5	N/A	N/A	880	N/A	N/A	
00:00:30	N/A	833	18.5	N/A	N/A	N/A	N/A	N/A	
00:01:00	N/A	833	18.5	40.0	21.5	N/A	38.74	N/A	
00:01:30	N/A	833	18.5	40.5	22	N/A	37.88	N/A	
00:02:00	N/A	833	18.5	41.0	22.5	N/A	37.02	N/A	
00:02:30	N/A	833	18.5	42.0	23.5	N/A	35.45	N/A	
00:03:00	N/A	833	18.5	42.5	24	N/A	34.71	N/A	
00:03:30	N/A	833	18.5	42.75	24.25	N/A	34.35	N/A	
00:04:00	N/A	833	18.5	42.75	24.25	N/A	34.35	N/A	
00:04:30	N/A	833	18.5	43.0	24.5	N/A	34.00	N/A	
00:05:00	N/A	833	18.5	43.5	25	N/A	33.32	N/A	
00:05:30	N/A	833	18.5	43.5	25	N/A	33.32	N/A	
00:06:00	N/A	833	18.5	43.5	25	N/A	33.32	N/A	
00:06:30	N/A	833	18.5	43.5	25	N/A	33.32	N/A	
00:07:00	N/A	833	18.5	43.9	25.4	N/A	32.80	N/A	
00:07:30	N/A	833	18.5	44.0	25.5	N/A	32.67	N/A	
00:08:00	N/A	833	18.5	44.0	25.5	930	32.67	N/A	
00:08:30	N/A	833	18.5	44.5	26	N/A	32.04	N/A	
00:09:00	N/A	833	18.5	45.0	26.5	N/A	31.43	N/A	

Pump Test Report

Date: 11-07-03
 Customer: ARB
 Discharge Pipe: 8"
 Office Dia: N/A
 Bowl Used: 12 NKH
 Hours Pumped This Day: 10

Tested By: Doug Johnson
 Well Depth: 109'
 Well I.D.: 16"
 Static Level: 18.5'
 Type Pits: R.M., W.W., Screen
 Hours Pumped To Date: 34

Location: Dance Hall
 Remarks: Step Test
 Page: 5

Smith Met Pump & Drilling
 53-381 Highway 111
 Coachella, CA 92236
 Office: 800.770.7360
 Fax: 760.398.2287

Time	On/Off	G.P.M.	S.W.L.	Pumping Level	Drawdown	Eng. R.P.M.	Yield	Clean Up Time	Remarks
00:25:00	N/A	833	18.5	45.0	26.5	N/A	31.43	N/A	
00:30:00	N/A	833	18.5	45.25	26.75	N/A	31.14	N/A	
00:35:00	N/A	783	18.5	45.5	27	N/A	29.00	N/A	
00:40:00	N/A	783	18.5	45.75	27.25	N/A	28.73	N/A	
00:45:00	N/A	783	18.5	45.75	27.25	N/A	28.73	N/A	
00:50:00	N/A	783	18.5	46.0	27.5	N/A	28.47	N/A	
00:55:00	N/A	783	18.5	46.0	27.5	N/A	28.47	N/A	
01:00:00	N/A	783	18.5	46.25	27.75	N/A	28.22	N/A	
01:15:00	N/A	783	18.5	47.0	28.5	N/A	27.47	N/A	
01:30:00	N/A	783	18.5	47.0	28.5	N/A	27.47	N/A	
01:45:00	N/A	783	18.5	47.0	28.5	N/A	27.47	N/A	
02:00:00	N/A	783	18.5	47.0	28.5	N/A	27.47	N/A	
02:15:00	N/A	763	18.5	47.0	28.5	N/A	26.77	N/A	
02:30:00	N/A	763	18.5	47.0	28.5	N/A	26.77	N/A	
02:45:00	N/A	763	18.5	47.0	28.5	N/A	26.77	N/A	
03:00:00	N/A	763	18.5	47.0	28.5	N/A	26.77	N/A	
03:00:30	N/A	763	18.5	51.5	33	N/A	23.12	N/A	
03:01:00	N/A	763	18.5	54.0	35.5	N/A	21.49	N/A	

Pump Test Report

Date: 11-07-03
 Customer: ARB
 Discharge Pipe: 8"
 Office Dia: N/A
 Bowl Used: 12 NKH

Hours Pumped This Day: 10

Tested By: Doug Johnson
 Well Depth: 109'
 Well ID: 116"
 Static Level: 18.5'
 Type Perfs: RM, W/W, Screen
 Hours Pumped 19 Date: 34

Location: Dance Hall
 Remarks: Step Test
 Page: 6

South West Pump & Drilling
 53-381 Highway 111
 Coachella, CA 92236
 Office: 800.770.7360
 Fax: 760.398.2287

Time	Office*	G.P.M.	S.W.L.	Pumping Level	Drawdown	Eng. R.P.M.	Yield	Clean Up Time	Remarks
03:01:30	N/A	763	18.5	54.5	36	N/A	21.19	N/A	
03:02:00	N/A	763	18.5	54.75	36.25	N/A	21.05	N/A	
03:02:30	N/A	763	18.5	55.0	36.5	N/A	20.90	N/A	
03:03:00	N/A	763	18.5	55.0	36.5	N/A	20.90	N/A	
03:03:30	N/A	763	18.5	55.25	36.75	N/A	20.76	N/A	
03:04:00	N/A	763	18.5	55.5	37	N/A	20.62	N/A	
03:04:30	N/A	763	18.5	55.5	37	N/A	20.62	N/A	
03:05:00	N/A	763	18.5	55.25	36.75	N/A	20.76	N/A	
03:06:00	N/A	763	18.5	55.5	37	N/A	20.62	N/A	
03:07:00	N/A	763	18.5	55.25	36.75	N/A	20.76	N/A	
03:08:00	N/A	763	18.5	55.75	37.25	N/A	20.48	N/A	
03:09:00	N/A	763	18.5	55.75	37.25	N/A	20.48	N/A	
03:10:00	N/A	1000	18.5	56.0	37.5	1025	26.67	N/A	
03:15:00	N/A	1000	18.5	56.0	37.5	N/A	26.67	N/A	
03:20:00	N/A	1000	18.5	56.25	37.75	N/A	26.49	N/A	
03:25:00	N/A	1000	18.5	56.0	37.5	N/A	26.67	N/A	
03:30:00	N/A	1000	18.5	56.0	37.5	N/A	26.67	N/A	
03:35:00	N/A	1000	18.5	56.0	37.5	N/A	26.67	N/A	

Pump Test Report

Date: 11-07-03
 Customer: JAB8
 Discharge Pipe: 8"
 Office Dia: N/A
 Bowl Used: 12 NCH
 Hours Pumped This Day: 10

Tested By: Doug Johnson
 Well Depth: 109'
 Well I.D.: 16"
 Static Level: 18.5'
 Type Perfs: R/M, W/W, Screen
 Hours Pumped To Date: 34

Location: Dance Hall
 Remarks: Step Test
 Page: 7

South West Pump & Drilling
 53-381 Highway 111
 Coachella, CA 92236
 Office: 800.770.7360
 Fax: 760.398.2287

Time	Office	G.P.M.	S.W.L.	Pumping Level	Drawdown	Eng R.P.M.	Yield	Clean Up Time	Remarks
03:40:00	N/A	1000	18.5	55.75	37.25	N/A	26.85	N/A	
03:45:00	N/A	1000	18.5	55.5	37	N/A	27.03	N/A	
03:50:00	N/A	1000	18.5	55.0	36.5	N/A	27.40	N/A	
03:55:00	N/A	1000	18.5	55.25	36.75	N/A	27.21	N/A	
04:00:00	N/A	1000	18.5	55.5	37	N/A	27.03	N/A	
04:15:00	N/A	1000	18.5	56.0	37.5	N/A	26.67	N/A	
04:30:00	N/A	1000	18.5	56.0	37.5	N/A	26.67	N/A	
04:45:00	N/A	1000	18.5	56.0	37.5	N/A	26.67	N/A	
05:00:00	N/A	1000	18.5	55.75	37.25	N/A	26.85	N/A	
05:15:00	N/A	1000	18.5	56.0	37.5	N/A	26.67	N/A	
05:30:00	N/A	1000	18.5	56.0	37.5	N/A	26.67	N/A	
05:45:00	N/A	1000	18.5	56.0	37.5	N/A	26.67	N/A	
06:00:00 12 PM	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
06:05:30	N/A	1250	18.5	65.0	46.5	N/A	26.88	N/A	
06:01:00	N/A	1250	18.5	66.0	47.5	N/A	26.32	N/A	
06:01:30	N/A	1250	18.5	67.0	48.5	N/A	25.77	N/A	
06:07:00	N/A	1250	18.5	67.0	48.5	N/A	25.77	N/A	

Pump Test Report

Date: 11-07-03
 Customer: ABB
 Discharge Pipe: 8"
 Office Dia: N/A
 Bowl Used: 12 NKKH
 Hours Pumped This Day: 10

Tested By: Doug Johnson
 Well Depth: 109'
 Well I.D.: 16"
 Static Level: 18.5'
 Type Perfs: R.M. W.W. Screen
 Hours Pumped To Date: 34

Location: Dance Hall
 Remarks: Sep Test
 Page: 8

South West Pump & Drilling
 53-381 Highway 111
 Coachella, CA 92236
 Office: 800.770.7360
 Fax: 760.398.2287

Time	Office *	G.P.M.	S.W.L.	Pumping Level	Drawdown	Eng R.P.M.	Yield	Clean Up Time	Remarks
06:02:30	N/A	1250	18.5	67.0	48.5	N/A	25.77	N/A	
06:03:00	N/A	1250	18.5	66.5	48	N/A	26.04	N/A	
06:03:30	N/A	1250	18.5	66.25	47.75	N/A	26.18	N/A	
06:04:00	N/A	1250	18.5	66.0	47.5	N/A	26.32	N/A	
06:04:30	N/A	1250	18.5	66.0	47.5	N/A	26.32	N/A	
06:05:00	N/A	1250	18.5	66.0	47.5	N/A	26.32	N/A	
06:06:00	N/A	1250	18.5	66.0	47.5	N/A	26.32	N/A	
06:07:00	N/A	1250	18.5	66.25	47.75	N/A	26.18	N/A	
06:08:00	N/A	1250	18.5	66.25	47.75	N/A	26.18	N/A	
06:09:00	N/A	1250	18.5	66.25	47.75	N/A	26.18	N/A	
06:10:00	N/A	1250	18.5	66.5	48	N/A	26.04	N/A	
06:15:00	N/A	1304	18.5	66.75	48.25	N/A	27.03	N/A	
06:20:00	N/A	1304	18.5	66.0	47.5	N/A	27.45	N/A	
06:25:00	N/A	1304	18.5	65.5	47	N/A	27.74	N/A	
06:30:00	N/A	1304	18.5	65.5	47	1200	27.74	N/A	
06:35:00	N/A	1195	18.5	65.75	47.25	N/A	25.29	N/A	
06:40:00	N/A	1195	18.5	65.75	47.25	N/A	25.29	N/A	

Pump Test Report

Date: 11-07-03
 Customer: A88
 Discharge Pipe: 8"
 Office Dia: N/A
 Bowl Used: 12 N/KH
 Hours Pumped This Day: 10

Tested By: Doug Johnson
 Well Depth: 109'
 Well I.D.: 16"
 Static Level: 18.5
 Type Pumps: R/M, W/W, Screen
 Hours Pumped To Date: 34

Location: Dance Hall
 Remarks: Step Test
 Page: 9

South West Pump & Drilling
 53-361 Highway 111
 Coachella, CA 92236
 Office: 800.770.7360
 Fax: 760.398.2267

Time	Orifice "	G.P.M.	S.W.L.	Pumping Level	Drawdown	Eng R.P.M.	Yield	Clean Up Time	Remarks
06:45:00	N/A	1170	18.5	66.0	47.5	N/A	24.63	N/A	
06:50:00	N/A	1200	18.5	66.0	47.5	N/A	25.26	N/A	
06:55:00	N/A	1200	18.5	66.0	47.5	N/A	25.26	N/A	
07:00:00	N/A	1200	18.5	66.0	47.5	N/A	25.26	N/A	
07:15:00	N/A	1200	18.5	66.0	47.5	N/A	25.26	N/A	
07:30:00	N/A	1200	18.5	65.5	47	N/A	25.53	N/A	
07:45:00	N/A	1200	18.5	65.5	47	N/A	25.53	N/A	
08:00:00	N/A	1466	18.5	65.75	47.25	N/A	31.03	N/A	
08:05:30	N/A	1466	18.5	66.0	47.5	N/A	30.86	N/A	
08:01:00	N/A	1466	18.5	70.0	51.5	N/A	28.47	N/A	
08:01:30	N/A	1466	18.5	72.5	54	N/A	27.15	N/A	
08:02:00	N/A	1466	18.5	72.5	54	N/A	27.15	N/A	
08:02:30	N/A	1466	18.5	73.0	54.5	N/A	26.90	N/A	
08:03:00	N/A	1466	18.5	73.0	54.5	N/A	26.90	N/A	
08:03:30	N/A	1466	18.5	73.25	54.75	N/A	26.78	N/A	
08:04:00	N/A	1466	18.5	73.25	54.75	N/A	26.78	N/A	
08:04:30	N/A	1466	18.5	73.75	55.25	N/A	26.53	N/A	
08:05:00	N/A	1466	18.5	74.0	55.5	N/A	26.41	N/A	

Pump Test Report

Date: 11-07-03
 Customer: ARB
 Discharge Pipe: 8"
 Office Dia: N/A
 Bowl Used: 12M4
 Hours Pumped This Day: 10

Tested By: Doug Johnson
 Well Depth: 109'
 Well I.D.: 16"
 Static Level: 18.5"
 Type Perfs: R.M. W.W. Screen
 Hours Pumped To Date: 34

Location: Dance Hall
 Remarks: Step Test
 Page: 10

Smith Hot Pump & Drilling
 53-381 Highway 111
 Coachella, CA 92236
 Office: 800.770.7360
 Fax: 760.398.2287

Time	Office *	G.P.M.	S.W.L.	Pumping Level	Drawdown	Eng. R.P.M.	Yield	Clean Up Time	Remarks
08:06:00	N/A	1466	18.5	74.0	55.5	N/A	26.41	N/A	
08:07:00	N/A	1466	18.5	74.0	55.5	N/A	26.41	N/A	
08:08:00	N/A	1466	18.5	74.0	55.5	N/A	26.41	N/A	
08:09:00	N/A	1466	18.5	74.0	55.5	N/A	26.41	N/A	
08:10:00	N/A	1466	18.5	74.0	55.5	N/A	26.41	N/A	
08:15:00	N/A	1466	18.5	75.0	56.5	N/A	25.95	N/A	
08:20:00	N/A	1466	18.5	74.5	56	N/A	26.18	N/A	
08:25:00	N/A	1466	18.5	74.5	56	N/A	26.18	N/A	
08:30:00	N/A	1466	18.5	74.5	56	N/A	26.18	N/A	
08:35:00	N/A	1466	18.5	74.75	56.25	N/A	26.06	N/A	
08:40:00	N/A	1466	18.5	75.0	56.5	N/A	25.95	N/A	
08:45:00	N/A	1466	18.5	75.5	57	N/A	25.72	N/A	
08:50:00	N/A	1466	18.5	76.0	57.5	N/A	25.50	N/A	
08:55:00	N/A	1466	18.5	76.0	57.5	N/A	25.50	N/A	
09:00:00	N/A	1466	18.5	76.0	57.5	N/A	25.50	N/A	
09:15:00	N/A	1442	18.5	77.0	58.5	1425	24.65	N/A	
09:30:00	N/A	1442	18.5	78.0	59.5	1425	24.24	N/A	

Pump Test Report

Date: 11-07-03
 Customer: ARB
 Discharge Pipe: 8"
 Office Dia: N/A
 Bowl Used: 12NKH
 Hours Pumped This Day: 10

Tested By: Doug Johnson
 Well Depth: 109'
 Well I.D.: 16"
 Static Level: 18.5"
 Type Perf: R41W/W Screen
 Hours Pumped To Date: 34

Location: Dance Hall
 Remarks: Step Test
 Page: 11

Smith West Pump & Drilling
 53-381 Highway 111
 Coachella, CA 92236
 Office: 800.770.7360
 Fax: 760.398.2287

Time	Office *	G.P.M.	S.W.L.	Pumping Level	Downtown	Eng R.P.M.	Yield	Clear Up Time	Remarks
09:45:00	N/A	1442	18.5	78.0	59.5	1425	24.24	N/A	
10:00:00 4:00 PM	N/A	1442	18.5	78.0	59.5	1425	24.24	N/A	

Pump Test Report

Date: 11-08-03
 Customer: ARB
 Discharge Pipe: 8"
 Office Dia: N/A
 Bowl Used: 12 N/KH
 Hours Pumped This Day: 24

Tested By: Doug Johnson & David Lewis
 Well Depth: 109'
 Well I.D.: 16"
 Static Level: 18.5'
 Type Perfs: R/M, W/W, Screen
 Hours Pumped To Date: 58

Location: Dance Hall
 Remarks: Constant Rate Test
 (24 hours)

Page: 12

Smith West Pump & Drilling
 53-381 Highway 111
 Coachella, CA 92238
 Office: 800.770.7360
 Fax: 760.388.2287

Time (min)	Office *	G.P.M.	S.W.L.	Pumping Level	Drawdown	Eng. R.P.M.	Yield	Clean Up Time	Remarks
00:00:00	N/A	1000	18.5	N/A	N/A	N/A	N/A	N/A	
00:00:30	N/A	1000	18.5	N/A	N/A	N/A	N/A	N/A	
00:01:00	N/A	1000	18.5	46.0	27.5	N/A	36.36	N/A	
00:01:30	N/A	1000	18.5	47.0	28.5	N/A	35.09	N/A	
00:02:00	N/A	1000	18.5	48.0	29.5	N/A	33.90	N/A	
00:02:30	N/A	1000	18.5	50.0	31.5	N/A	31.75	N/A	
00:03:00	N/A	1000	18.5	50.0	31.5	N/A	31.75	N/A	
00:03:30	N/A	1000	18.5	49.5	31	N/A	32.26	N/A	
00:04:00	N/A	1000	18.5	51.0	32.5	N/A	30.77	N/A	
00:04:30	N/A	1000	18.5	52.0	33.5	N/A	29.85	N/A	
00:05:00	N/A	1000	18.5	52.0	33.5	N/A	29.85	N/A	
00:06:00	N/A	1000	18.5	52.0	33.5	N/A	29.85	N/A	
00:07:00	N/A	1000	18.5	52.0	33.5	N/A	29.85	N/A	
00:08:00	N/A	1000	18.5	52.25	33.75	N/A	29.63	N/A	
00:09:00	N/A	1000	18.5	52.5	34	N/A	29.41	N/A	
00:10:00	N/A	1000	18.5	52.75	34.25	N/A	29.20	N/A	Totalizer 56,622
00:11:00	N/A	1000	18.5	53.0	34.5	N/A	28.99	N/A	
00:12:00	N/A	1000	18.5	53.0	34.5	N/A	28.99	N/A	

Pump Test Report

Date: 11-08-03
 Customer: ARB
 Discharge Pipe: 8"
 Office Dia: N/A
 Bowl Used: 12 NIKH
 Hours Pumped This Day: 24

Tested By: Doug Johnson & David Lewis
 Well Depth: 109'
 Well I.D.: 16"
 Static Level: 18.5'
 Type Perfs: R.M. W/V.W. Screen
 Hours Pumped To Date: 58

Location: Dance Hall Well
 Remarks: Constant Rate Test
 (24 hours)
 Page: 13

Smith West Pump & Drilling
 53-381 Highway 111
 Coachella, CA 92236
 Office: 800.770.7360
 Fax: 760.398.2287

Time	Office "	G.P.M.	S.W.L.	Pumping Level	Drawdown	Eng R.P.M.	Yield	Clean Up Time	Remarks
00:13:00	N/A	1000	18.5	53.0	34.5	N/A	28.99	N/A	
00:14:00	N/A	1000	18.5	53.25	34.75	N/A	28.78	N/A	
00:15:00	N/A	1000	18.5	53.5	35	N/A	28.57	N/A	
00:20:00	N/A	1000	18.5	53.5	35	N/A	28.57	N/A	56.632 @ (20.5 min)
00:25:00	N/A	1000	18.5	54.0	35.5	N/A	28.17	N/A	
00:30:00	N/A	1000	18.5	54.5	36	N/A	27.78	N/A	
00:35:00	N/A	1000	18.5	55.0	36.5	N/A	27.40	N/A	
00:40:00	N/A	1000	18.5	55.75	37.25	N/A	26.85	N/A	56.652
00:45:00	N/A	1000	18.5	56.0	37.5	N/A	26.67	N/A	
00:50:00	N/A	1000	18.5	56.0	37.5	N/A	26.67	N/A	
00:55:00	N/A	1000	18.5	56.0	37.5	N/A	26.67	N/A	
01:00:00	N/A	1000	18.5	56.0	37.5	N/A	26.67	N/A	
01:15:00	N/A	1000	18.5	55.5	37	N/A	27.03	N/A	
01:30:00	N/A	1000	18.5	55.0	36.5	N/A	27.40	N/A	
01:45:00	N/A	1000	18.5	55.0	36.5	N/A	27.40	N/A	
02:00:00	N/A	1000	18.5	54.5	36	N/A	27.78	N/A	
03:00:00	N/A	1000	18.5	54.5	36	N/A	27.78	N/A	56.792
04:00:00	N/A	1000	18.5	54.5	36	N/A	27.78	N/A	